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ABSTRACT

The purpose of this study was to compare mature readers' comprehension of text presented in traditional orthography with their comprehension of text presented in a regularized orthography, specifically, to determine whether, when traditional orthography is regularized, any loss of meaning is attributable to the loss of the visual dissimilarity of homophones or to the loss of visual similarity in morphemes. Subjects in the study were 97 upper track, twelfth grade English students in four classes of a Waukesha, Wisconsin, high school. Two weeks after pretesting ("Gates-MacGinitie Reading Tests," Survey F, Comprehension Section), two groups of subjects received four days of instruction and practice in regularized orthography and two groups received standard instruction. In the posttest situation subjects received alternate forms of the comprehension test and a test of morphemic relationships. Two groups received test forms in traditional orthography and two in regularized orthography. Tentative conclusions were that the loss of visual dissimilarity of homophones was not a factor affecting comprehension but the loss of visual similarity in morphemes related in meaning had a negative effect on the establishment of meaning relationships between such morphemes. (Author/JM)

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(Part 1 of 2 Parts)

READING COMPREHENSION AND REGULARIZED ORTHOGRAPHY

by
Robert L. Carvell

Report from the Project on
Conditions of School Learning and Instructional Strategies

Wayne Otto
Principal Investigator

Wisconsin Research and Development
Center for Cognitive Learning
The University of Wisconsin
Madison, Wisconsin

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Abstract

READING COMPREHENSION AND REGULARIZED ORTHOGRAPHY

Robert L. Carvell

Under the Supervision of Professor Wayne Otto

The purpose of this study was to compare mature readers' comprehension of text presented in traditional orthography with those same readers' comprehension of text presented in a regularized orthography. Two considerations were of particular concern in the study: 1. When traditional orthography is regularized, is any loss of meaning attributable to the loss of the visual dissimilarity of homophones? 2. When traditional orthography is regularized, is any loss of meaning attributable to the loss of visual similarity in morphemes?

Subjects in the study were 97 upper track, twelfth grade, English students in four classes at the South Campus of Waukesha High School, Waukesha, Wisconsin.

All subjects were administered the Gates-MacGinitie Reading Tests, Survey F, Comprehension Section, with the text presented in traditional English spelling. Two weeks after pretesting, two groups of subjects received four days of instruction and practice in the principles of a regularized orthography. The remaining two groups received instruction typical of that received by twelfth grade English students. In the posttest situation subjects received alternate forms of the comprehension test and a test of morphemic relationships. Two groups received forms of the tests with the text

presented in traditional orthography. Two groups received forms of the test with the text presented in a regularized orthography. The data were analyzed to determine the effects on comprehension in general, to determine whether the loss of the visual dissimilarity of homophones was a factor in comprehension, to determine whether the loss of the visual similarity of morphemes affected the establishment of meaning relationships between morphemes, to determine whether the treatment had a negative effect on comprehension of text presented in traditional orthography, and to determine the effectiveness of the treatment.

Posttest scores on the test forms of the comprehension test presented in a regularized orthography were significantly lower than the posttest scores on the test forms of the comprehension test presented in traditional orthography. The presence of a larger-than-average number of homophones was determined not to be a factor affecting reading comprehension. Subjects taking the test of morphemic relationships in traditional orthography did significantly better on the subtest Visually Similar and Similar in Meaning than the subjects taking the test of morphemic relationships in a regularized orthography. Four days instruction and practice in the principles of a regularized orthography produced no negative effects on subjects' comprehension of text presented in traditional orthography. The four-day treatment period produced no significant difference compared to five minutes of instruction and practice in the principles of the regularized orthography.

The tentative conclusions drawn were that the loss of the visual dissimilarity of homophones was not a factor affecting comprehension but that the loss of visual similarity in morphemes related in meaning had a negative effect on the establishment of meaning relationships between such morphemes.

Wayne Otto

Wayne Otto, Professor
Curriculum and Instruction

CHAPTER I

INTRODUCTION

Statement of Purpose

A discussion as to whether or not traditional English orthography is the optimal writing system for the English language has been carried on for some four hundred years. The primary argument for change is that the present orthography does not have a one-to-one sound-symbol relationship in its spelling. The proponents of spelling reform therefore generally have recommended a more phonetic, or regularized, spelling. The focus of the concern of the spelling reformers has often been on illiteracy and the difficulty of learning traditional orthography. Those who consider traditional orthography to be adequate, if not optimal, contend that traditional orthography allows for etymological transparency and homophones. These aspects of traditional orthography would be lost if English spelling were to be based solely on a phonetic principle. Defenders of traditional orthography contend that such losses would reduce the mature reader's facile use of the orthography.

The purpose of this study was to compare mature, competent, readers' comprehension of text presented in traditional orthography with those same readers' comprehension of text presented in a regularized orthography. Answers to the following questions were sought:

1. Is mature readers' comprehension of text hindered by the regularization of traditional orthography?

2. Does the loss of the visual differences in homophones result in reduced comprehension of text by mature readers when traditional orthography is regularized?

3. Does the loss of visual similarities in morphemes of similar meaning result in loss of meaning relationships for mature readers between words when traditional orthography is regularized?

Two considerations were of particular concern in this study: 1. When traditional orthography is regularized, is any loss of meaning attributable to the loss of the visual dissimilarity of homophones? 2. When traditional orthography is regularized, is any loss of meaning attributable to the loss of visual similarity in morphemes? Loss of meaning was considered at two levels: morphemic relationships and full text.

Certain terms, some of them rather common, are used with rather specific definitions in the discussion that follows. The Definition of Terms, therefore, precedes the Review of the Literature.

Definition of Terms

Comprehension: "It is a continual nemesis to reading researchers to have to admit that we are really not sure what we are talking about when we speak and write about reading 'comprehension'" (Carver and Darby, 1972). Carver and Darby further state, "Reading comprehension can be defined as a thought communication process which involves two primary components--the rate at which the thoughts are

received and the accuracy with which the thoughts are understood or stored. The end product of these two components is the efficiency with which the thoughts are communicated." In this study, reading comprehension will be primarily defined as per Carver and Darby with the two components of speed and understanding. When understanding without a time component is considered, it will be so specified. In operational terms, "level of comprehension" is defined as correct responses (raw score) on the comprehension section of a standardized reading test with percentile ranks and conversion to grade equivalents being acceptable indices of that "level."

Full text: In this study a paragraph is accepted as meeting the requirement for full text. In a very gross way, full text is differentiated from a word in isolation and a short sentence. Full text is defined as the communicating of an idea (or ideas) of such a nature that several sentences or a single, lengthy, possibly complex, sentence are required to complete the communication.

Grapheme: A member of the set of units of a writing system which represents a phoneme or a phonemic cluster. "The written representation of the sounds of a language; a letter or letters which represent(s) a phoneme. Spelling, or orthography, is the writing of graphemes in proper order to form morphemes" (Lamb, 1967, p. 138).

Homographs: "Pairs of words that have the same spellings but with different pronunciations and different meanings" (as in, for example, "He set a new record" versus "Did she record the music?") (Whitford, 1966, p. 55). As with the term homophone, the specifica-

tion of different origin (Franklyn, 1966) does not apply in this study. A third definition, used by Winograd and Conn (1971), that a homograph is "a word form which, while invariant in spelling, has more than one meaning" is not used because it lacks the specification that there be a difference in pronunciation. The notion of Kausler and Kollach (1970) that "homographs are usually homophones as well . . . " is totally irreconcilable to the definitions as used in this study. In a more precise sense, the terms homophone and homograph as used in this study correspond to the labels "heterographic homophone" and "heterophonic homograph" used by Bradshaw (1975).

Homonyms: In this study homonyms are words with the same pronunciation and the same spelling having different meanings. The six dictionary entries for the word low (Webster's New Collegiate Dictionary, 1973) are homonyms. The differentiation between homonym and homophone in this study is critical. By the definitions here established, when traditional orthography is regularized a homonym remains a homonym (e.g., bear, an animal - bear, to carry = bar), but a pair of homophones becomes a homonym (e.g., bear - bare = bar).

Homophones: "Pairs[1] of words that have the same pronunciation[2] but with different spellings and different meanings" (Whitford, 1966, p. 1). The term homophone as used in this study does not imply a

---

[1] As pointed out by Galbraith and Taschman (1969), there are occasional triplets: new-knew-gnu, sent-cent-scent, etc.

[2] Despite the complexities of "dialect harmony" and idiolect pointed out by Truby (1966) it appears homophones do generalize across dialects with a few exceptions--one of which is the classic "merry-marry-Mary" triplet.

difference in derivation as specified by Franklyn (1966, p. xi). In other words, in this study "draft-draught" are considered homophonous even though they ultimately converge on the idea "to draw." On the other hand, the noun "well" and the adverb "well" are not considered to be homophones in this study in the manner in which Williams (1944, p. 4) specified. In practice the terms homophone and homonym are often used synonymously. In this study "homonyms" specifies words that sound the same and have the same spelling; but have different meanings. As Truby (1966) indicated, "All of the words 'bear' are homonyms." On the other hand, Truby's contention that the "m-" of make and the "-m-" of coming are homophones is rejected in this study for not complying with the specification that homophones must be words.

Mature reader: For purposes of this study a mature reader was defined as a twelfth grade, upper track, English student. A guideline of "a grade twelve student reading at at least a 12.0 grade level" was used. Terms such as skilled and highly literate are also used in the same way as mature is used in this study. Klima (1972) is one of the few who has attempted to define or describe the characteristics of the mature language user. In this respect he also was describing certain characteristics of the mature reader, if the contention (Chomsky and Halle, 1968) that orthography is a system designed for the reader who knows the language is valid. Because Klima designated no assessment instrument, it can only be hoped that the standards established in this study account for an inventory of basic

sound segments, vocabulary, phonological rules, and "everything else there is to know that is meant by knowing a language" (Klima, 1972, p. 67).

Morpheme: A meaning-carrying unit of language that contains no smaller meaningful parts. "Morphemes include word roots, prefixes, suffixes, and inflectional endings" (Hoisington, 1968, p. 10).

Morphemic relationships: The basic concept underlying the notion of morphemic relationships is what Oswalt (1973) specified as the "greater etymological transparency" of traditional orthography. If mature readers use visually similar morphemes, as in sane-sanity and divine-divinity, so that a meaning relationship is established because of this visual similarity, then the question of what happens when the mature reader encounters morphemes that are visually similar but are dissimilar in meaning, as in inside-insidious, arises. Two other possibilities logically follow: a relationship in which the morphemes are visually dissimilar but similar, or related, in meaning, as in legal-loyal, and a relationship in which the morphemes are visually dissimilar and dissimilar in meaning, as in dindle-serve. In this study morphemic relationship is the presence, or lack, of a connection or kinship between two morphemes based on their visual appearances and their meanings. Morphophonemic alternation thus is a type of morphemic relationship.

Morphological relationships: The interrelationships of the word-forming elements and processes in a language.

Morphophonemic alternation: The predictable changes in a given morpheme resulting from particular morphological relationships; also,

the predictable appearance of allomorphs of a given morpheme. Hall (1973) specified two types of alternations: vowel-phonemes as in vain to vanity and divine to divinity; and consonant-phonemes as in knife to knives. Hall further indicated that the study of such alternations of phonemes within morphemes is named morphophonemics. In this study morphophonemic alternation is included under the broader label of morphemic relationships.

Orthography: In its most complete sense orthography refers to the entire "system of conventions in the use of certain symbols as the basic signals in a code known as written language" (Gleason, 1961, p. 408). Gleason indicated the design of an orthography to be a "difficult and intricate matter about which we as yet know all too little [p. 424]." Gleason also considered spelling reform to be "merely a small-scale attempt [p. 424]" at the design of an orthography. On the other hand Webster's New World Dictionary (1964) defines orthography primarily in terms of spelling. In this study the term orthography is basically defined as the representation of meaning in writing. Because English orthography is considered to be an alphabetic orthography (Gelb, 1952) and because sound plays the the dominant role in English spelling (Weir and Venezky, 1968), the particular concern with English orthography in this study is the representation of the sounds of the language (phonemes) by written or printed symbols (graphemes). See also regularized orthography.

Paragraph: The term paragraph when used in reference to the comprehension section of the Gates-MacGinitie Reading Tests, Survey F includes both the stem paragraph and the possible answers. For

example, Paragraph 1F 1-2 specifies the 82 words beginning with the first word of the paragraph--Masks--and ending with the last possible answer--applaud.

Phoneme: A member of the set of the smallest units of speech that serve to distinguish one utterance from another in a language.

Regularized orthography: A system of writing in which there is an attempt to represent each vowel and consonant phoneme of English with but one written symbol. In earlier literature (Ellis, 1848) the term phonetic was, in this sense, synonymous with regularized. In recent literature (Swadesh, 1957; Schane, 1971) the term phonemic is, in this sense, synonymous with regularized. The regularized orthography used in this study is described in Chapter II.

Traditional orthography: The present system for writing the English language. Of specific concern in this study is the way English words are presently spelled. The other conventions of traditional English orthography--capitalization, punctuation, etc.--are retained as much as possible in the regularized orthography used in this study.

Word: Gleason (1961) stated, "The word is one of the most difficult concepts in English morphology to define . . . [p. 110]." Webster's New Collegiate Dictionary (1973) provides this definition: " . . . a speech sound or series of speech sounds that symbolizes and communicates a meaning without being divisible into smaller units capable of independent use . . . a written or printed character or combination of characters representing a spoken word . . . [p. 1350]."

For purposes of computer programing, in this study a printed word could consist of a string of twenty-eight such possible characters--the twenty-six letters of the alphabet, hyphens, and apostrophes. All other characters--such as periods and commas--and white spaces were interpreted as word boundaries. For example, "larger-than-life-size" was interpreted as one word; "actors' voices" was interpreted as two words.

The Nature of the Problem

"It's time someone took up the cudgels again for rational grammar and rational spelling" (Hayakawa, 1970). "There is . . . nothing particularly surprising about the fact that conventional orthography is . . . a near optimal system for the lexical representation of English words" (Chomsky and Halle, 1968, p. 49). These contrasting contemporary views are rather typical of the divergent opinions regarding English spelling. The discussion is not new. It is centuries old.

The nature of the problem dealt with in this study is, in its essence, the lack of resolution to an argument having educational significance. Beginning instruction in two of the "Three R's" has at its core the common element of orthography. At the same time, two of the basic tools of linguistic communication employed by adults--reading and writing--have as their natural common element the orthography of that language. Therefore, when respected men's judgments of English orthography differ from "irrational" to "optimal," it would seem that additional investigation is in order.

Review of the Literature

Selected historical statements of the arguments for and against revision of English orthography are presented in the first part of this review of the literature. Recent experimental investigations bearing on the issue are presented in the second part. The rationale for this study is implicit in the conflicting statements concerning change in traditional English orthography.

Historical Debate

Sixteenth Century. After about 1475, when printing was introduced into England, English spelling tended to become "fixed" (Mathews, 1966, p. 21). But the spelling which became fixed represented an earlier pronunciation. The language had undergone great phonological changes which were not represented in the orthography (Pyles, 1971). Recommendations were soon being made for changes in the spelling. One of those early advocates of reform was John Hart. A rather full discussion is given to the arguments which Hart cites, for these arguments, both pro and con, are essentially the same ones that reappear in the following centuries. Hart (1569) listed four arguments used by defenders of our "abused" English spelling in their attempts to persuade him not to advocate change in English writing which, the defenders claimed, "is of late brought to such a perfection as never the lyke was before [p. 10-11]." Hart considered these four arguments to have in them "some likelyhoode of reason":

> "The first is under pretence to shew the derivation and spring of some words borowed or taken forth of strange tongues. [Etymology]
>
> Another is, that it should be lawfull to abuse some letters to put a difference betwixt equivoces of wordes of one sounde. [Homophones]
>
> The thirde is for the time of vowels.
>
> But their strongest defence (which comprehendeth all) and that wherin they most triumph, is use . . . the power and soundes of some letters, have bene over long double, for nowe to be receyved single, whatsoever they were aunciently: for that which use by little and little and with long continuance bringeth into any peoples maner of doings, is never spoken or written against without great offence to the multitude . . . [General acceptance] [pp. 10-11]."

Etymology, homophones, the complexities of vowel specifications, and resistance to change were the arguments Hart received when he talked of spelling reform.

Hart also specified what he considered to be the arguments for spelling change: diminution--when writing lacks "sufficient markes" for the "voices of the speach [p. 14]"; superfluitie--"when any worde or sillable hath more letters, than are used of voyces in the pronunciation [p. 15]." Under this argument for spelling change Hart included certain counter-arguments to the "maintainers of abused English writing": If there were enough letters, there would be no need for double letters for vowels that "shoulde be longer sounded in one place than in another." Concerning the argument for indicating derivation Hart said, "[If] every nation use others words, as they maye best frame their tongues thereunto, the writing whereof

ought to be accordingly, without any scrupulositie [p. 17]." Concerning homophones Hart asked how one can mistake "equivoces" for "being so written, who (seeing the sentence) will any more doubt of the true meaning thereof, then when he shall heare it spoken [p. 19]." Hart showed he understood the etymological argument when he stated, " . . . thother difference which they say, is for a help to the understanding of some words, simple and others compound, by writing some letters, which we use not to sounde in speach, and therfore to differ from the speach, which is called Etymologie [pp. 19-20]." Hart cited examples of what he believed to be erroneous and misleading insertions and superfluous letters and advised, regarding etymological concerns, "And so the writer ought to be carefull, to write every word as it is spoken: maintaining his Orthographie . . . [p. 20]." Hart's last two arguments for spelling reform were contentions that writing is corrupted (a) when it gives "divers powers to one letter [p. 21]"; and (b) when it misplaces and disorders letters as in ordre, numbre, trifle and table, in which the French spelling is kept but in which the English pronunciation is not represented. In this regard Hart was speaking of what he labeled the "liquides or semivocales" in final syllables or, as he called them, "half sillables [p. 22]." Hart thus presented the basic case of those who then, and now, advocate a "phonetic"[3] orthography for the English language:

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[3]For most people the term "phonetic" carries with it the meaning "spell the word the way it sounds." A discussion of the terms phone, allophone, and phoneme would indicate the term "phonemic" to be more appropriate than the term "phonetic."

Each speech sound should have its single symbol in the orthography; there should be no "silent letters" in the orthography; assigning a different "power" (sound) to a letter based on its relationship to other letters in the word is unacceptable; and finally, the order of the letters in a word should represent English pronunciation, not anything else.

The reform attempts of Thomas Smith and William Bullokar were also along phonetic lines (Baugh, 1957), but Richard Mulcaster, who wanted certain changes in spelling made, was really a defender of traditional orthography. Baugh (1957) indicated that Mulcaster wanted to "try to remove defects in the existing system, not substitute a new one [p. 255]." By taking the position that "popular approval is the final authority," Baugh believed that in some cases Mulcaster became an apologist, justifying common practice. On a theoretical level Mulcaster contended that spelling could never perfectly represent sound. On a practical level he contended that the phonetic systems were inconvenient and that any attempt to force people against established custom would fail (Baugh, 1957, p. 254).

Seventeenth Century. In 1644, Richard Hodges demonstrated a concern for beginning reading by using a diacritical marking system in the beginning stages of reading instruction with the plan of dropping the diacritics as the child progressed and after he had mastered the idiosyncrasies of conventional spelling (Hodges, 1644).[4] Coles

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[4] In this regard see the "Introductory Note" to: R. C. Alston, (Ed.), The English Primrose: A Collection of Facsimile Reprints. Menston, England: Scolar Press, 1969.

(1674) outlined an instructional program of "such a natural, familiar, and pleasant method, that the Child shall have waded thorow three parts (at least) of all the words that are used in English Authors, before he meets with any considerable irregularity [unpaged 'To the Reader']."

Although Hodges and Coles offered no explicit arguments for spelling change, implicit in their methods was the argument that traditional English orthography was not optimal for instruction in beginning reading and spelling.

Price (1668) incorporated into the "Question and Answer" method of teaching English orthography a series of "objections." These "objections" were inserted directly into the text as "student" objections. Price partly answered the objection to using "c" before "e" and "i," rather than "s," with the reason "because of the affinitie, which these words do keep with the Latine [p. 10]." Implicit in Price's answer to the objection was the assumption, and argument, that the preservation of this 'affinitie' was a desirable feature in the spelling.

Eighteenth Century. In the 1707 edition of his English School Reform'd Richard Brown(e) posed this question in The Examination: "Q. Why are so many letters writ, when they bear no sound with them?" The answer given may be considered a statement of the position of the "defenders" of conventional spelling. "A. For the sake, either of Beauty, Custom, or Derivation" (Brown(e), 1707, p. 18).

In The Art of Reading and Writing English, Watts (1721), who was no spelling reformer, answered a question about compound words and their spellings, "In such as are derived from the Latin, Greek, or Hebrew . . . the primitive Word can never be distinguished without the knowledge of other Tongues: and therefore the English Scholar may spell them according to the common Rules, without just blame. [p. 32]." It is interesting that 250 years ago Watts hinted at what is presently one of the strongest arguments for traditional orthography when he stated, "A great part of the English Tongue is so irregular in the Letters and Composition of it, that it would require almost as many Rules to spell by, as there are Words to be spell'd: But there are several other Words that may be reduced into some Ranks and Order, and the Scholar may be assisted toward the spelling them aright, by the Observations, and the Rules following [pp. 87-88]."

James Elphinston (1795) in his A Minniature ov Inglish Orthoggraphy contended, "Hetteroggraphy indeed, or false litterary picture, can arize onely from won, or a combinacion, ov foar cauzes: redundance, defiscience, mischoice, or misarraingement [p. 2]." Elphinston gave as part of his "fundamental principel," on the other hand, the advice "to make no chainge dhat can rascionally be avoided . . . [p. 36]." Elphinston's "foar cauzes" are almost identical to Hart's (1569) four arguments for orthographic change.

Nineteenth Century. In Analytical Orthography, Wright (1847), stated clearly the theory of language which underlies the rationale for most of the spelling reformer's arguments:

> "Language existed before letters. Characters or letters were invented to represent the elementary sounds of spoken language. Now, by treating the elementary sounds as the first principles of the language, and letters as their representatives, much of the perplexity of what are called irregular sounds will disappear. The truth is there are no irregular sounds in the English language. Letters may be irregular in representing sounds, but the sounds themselves cannot be irregular. . . .[p. 7]."

Wright himself was no reformer, but the stated concept was essential to the manner in which he studied orthography. Wright contended that a "letter is a character used to represent an elementary sound [p. 39]." A second contention of Wright's was that a "substitute" is a "letter representing the sound that another letter usually represents [p. 61]." Wright developed certain "rules" which, for practical purposes, indicated that the orthography operated on relations other than the principle of one letter for one sound. For example, Wright contended that in particular environments "ti" and "t" "substituted" for "ch." Wright's notion of "substitution" at least foreshadowed contemporary concepts of predictability and alternation.

Possibly the most comprehensive and eloquent presentation of the argument for spelling reform was Ellis' Plea for Phonetic Spelling (Ellis, 1848). Ellis listed eight disadvantages of our present "heteric system of spelling," and eight advantages of "phoneticism." He also stated fourteen objections to phonetic spelling, and then gave his refutations to these objections. Ellis went into considerable detail in what must have been an attempt to answer once and for all the objections to a spelling reform based on phonetic principles.

In his discussion of the "etymological question" Ellis stated,

> "But we cannot think of this while speaking or writing. We cannot check the current of our ideas to consider whether this word is Greek or Latin, and that Saxon; whether a word is now used as it was two or three centuries ago, or whether it has not gradually acquired a totally opposite meaning. No; we must speak so as to be understood, we must employ words as they are now employed by the world, without bestowing a thought upon how they once were used, if we wish to be understood--to speak from heart to heart. The etymology will very seldom, if ever, lead us to this meaning, although, when we know the meaning, the etymology may enable us to account for it [pp. 98-99]."

In addition to "refuting" the etymological objection Ellis also offered refutations to the following objections: homonymical, pecuniary, linguistic (speech versus print), conservative (the resistance to change), pronunciative (the dialect problem), double-trouble (the fact that some would have to learn two orthographies), strange appearance, vocalistic (English versus European vowel-symbol relationships), book dearth, typical (changes in the fonts of printers), phonetical, inutility, and partial success.

Ellis listed the disadvantages to "Hetericism" as follows:

1. Heteric Spelling renders reading very difficult.
2. It renders writing still more so.
3. It necessitates every student to learn the spelling and pronunciation of every word in the langauge individually.
4. It renders the task of learning to read hateful, unpleasant, and slow.
5. It is consequently one of the great causes of the general prevalence of ignorance among the English people at the present day.
6. It occasions great difficulties to those who endeavour to reduce unwritten languages to writing, and obscures the names of persons and places.
7. It disables us from ascertaining the real condition of our spoken language, even a few hundred years back.
8. It is a great obstacle to the universality of our language, and its general use among foreigners. (Ellis, 1848, p. 75)

The advantages of "Phoneticism" were just the opposite of the disadvantages of "Hereticism":

1. Phonetic Spelling will render reading easy.
2. It will render spelling easy.
3. It enables the student as soon as he has learned the phonetic alphabet thoroughly, to spell any word with the same accuracy that he can pronounce it.
4. It renders the task of learning to read delightful to teacher and learner, and rapid of performance.
5. It will consequently tend to remove the present ignorance of the people, by opening to them a ready means for acquiring knowledge.
6. It will render the business of reducing unwritten languages to a written form, sure and easy.
7. It will be of essential service to the student of languages, in shewing him the exact state of a language at a given time.
8. It will tend most effectually to the general diffusion of our language among foreigners, and may complete the numerous claims which our idiom can already advance, to be used as a universal medium of communication between nation and nation. (Ellis, 1848, pp. 75-76.)

Though Ellis listed these advantages and disadvantages as eight points each, the major thrust of the statement reduces to: traditional orthography is hard to learn and use; a phonetic orthography would be easy.

Twentieth Century--to 1960. Lounsbury (1909), specified four objections to spelling change: loss of knowledge of derivation, likeness of spelling in words with unlike meanings, exixting books rendered valueless, and the impossibility of phonetic spelling. Certain of Lounsbury's comments deserve particular attention. He indicated, "According to some . . . the language would be ruined beyond redemption, if the spelling of a word should hide from our eyes the source from which it came [p. 283]." Lounsbury contended,

"There is no question, indeed, that this argument based upon etymology has the strongest hold upon the educated class. It is constantly brought forward as if it were sufficient of itself to settle the question [p. 284]." Lounsbury attributed to an Archbishop Trench the rationale for the retention of useless letters: "While they are silent to the ear, they remain eloquent to the eye [p. 285]." Lounsbury considered Trench to be "about the only English scholar of any repute who has come to the aid of the opponents of spelling reform [p. 285]." Lounsbury gave examples (fancy, comptroller, scent, island, etc.) of words "where the present form is the result of blundering ignorance which gives an utterly erroneous idea of their origin [pp. 288-289]." Lounsbury also discussed at length the argument that the "difference of spelling is quite essential to the recognition of words pronounced alike [pp. 307-308]." Lounsbury stated, "It needs but a moment's consideration to perceive the worthlessness of this argument [p. 312]." Lounsbury offered the counter-arguments that arriving at the sense of the homophone through the medium of the ear presents no difficulty and that there already exist many words which have different meaning, but the same spelling. Lounsbury did not consider differences in dialect to be a problem. He believed a decision adopting one pronunciation could be made and that decision resolved the issue.

Clarke (1921) felt that reading "ought to be a simple, almost mechanical attainment, mastered in a few weeks [p. 6]." But Clarke was also convinced that spelling change should not make old books useless. His recommendations were that "very slight" changes should be

made that were "adequate to regularise large portions of the vocabulary [pp. 63-64]."

In 1934 Swadesh (Joos, 1957) stated, "A phonemic orthography provides the most adequate, economical, and effective method of writing a language [p. 35]."

Soffietti (1955) stated, "It goes without saying that the ideal reading situation would be that in which the writing system of the language under consideration consisted of as many letters as there were phonemes in it, and that each letter always stood for only one and the same phoneme. Such a one-to-one correspondence would make writing a perfect visual symbolization of the spoken form."

Twentieth Century--1960 to present. Harrison (1964) indicated his concern that the English language is tending to "travel a path" toward a "multiplicity of mutually unintelligible languages." He contended, "The natural forces of divergence are fostered by mispronunciations which are stimulated by the present erratic spelling. The impetus towards convergence, which a printed form related to the spoken form would encourage, has not been allowed to be effective because of our spelling [p. 22]."

In this regard Goodman (1972) made the very opposite point when he contended that the present "spelling system is standardized across dialects." Gillooly (1973), on the other hand, said that a specific research question yet to be answered was whether or not traditional

English orthography possesses the dialectical adaptability claimed for it.[5]

Follick (1965), in The Case for Spelling Reform, based his arguments for spelling change on the assertion, "Our present spelling is just a chaotic concoction of oddities without order and without cohesion . . . [p. 1]."

Although Wijk (1966) pointed out that English orthography is based on the principles of two very different orthographical systems (Romance and Teutonic), he contended that about 90 to 95 percent of English words follow certain regular patterns in regard to their spelling and pronunciation. Wijk thus recommended a spelling reform which would "retain the present spelling in over 90 percent of the vocabulary [p. 153]."[6] In so doing, Wijk was attempting to answer the arguments that spelling reform based on a phonetic principle leads to too extensive a change and that such a solution "does not stand the slightest chance of ever being accepted [p. 153]."

Venezky (1967) contended that spelling reformers based their arguments on the "a priori assumption that alphabets should be perfectly phonetic." Venezky further stated, "Spelling units are not related directly to sound, but to an intermediate (morphophonemic) level first, and then to sound."

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[5] It is interesting to note that Gleason (1961) made the point that dialects assign their dialectical pronunciation to a phonemic (in this case a modified Trager-Smith convention) transcription.

[6] The details were presented in Wijk, 1959.

In a discussion of spelling reform, Cazden (1972), after citing specifically the Initial Teaching Alphabet but then applying her comments in a general way to all such spelling reforms, stated the belief that any such reform would be a "disastrous substitution for adults, just because all morphological relationships are lost in exclusive concern for similarities in superficial sounds [p. 64]."

Henderson (1974) expressed a judgment similar to Cazden's when he stated "phonetic precision could only yield chaos to reader and writer alike."

Gillooly (1973) stated, "Our traditional English writing system seems to be a near-optimal one for learning to read and, therefore, no basis has been found for the claim by spelling reformers that our traditional English orthography should be modified."

On the other hand, Hall (1973) stated, "Even with due allowance for the use of letters (especially vowel-letters) to stand for morphophonemic alternations, there is still enough looseness of fit between sound and letter . . . to render English spelling definitely non-optimal."

Bradshaw (1975) concluded, "Thus, any attempt at improving our script might best concentrate on expanding the alphabet so that each phoneme has a symbol. . . ."

Discussion of the Historical Debate

English orthography has been the subject of argument for centuries (Mencken, 1948; Baugh, 1957; Mathews, 1966; Venezky, 1970). A review of the literature reveals several recurring arguments both

for and against revision of the orthography. Of particular concern in this study are those arguments that deal with comprehension. Orthographic "beauty" (Browne, 1707; Ellis, 1848); "prejudice and habit" (Hart, 1569; Harley, 1877); pronunciation and dialectical considerations (Ellis, 1848; Goodman, 1972; Gillooly, 1973); "book-dearth" (Ellis, 1848; Lounsbury, 1909) are all legitimate subjects for concern. Ease of learning (Ellis, 1848; Soffietti, 1955; Dewey, 1971) must be a consideration high on the list for evaluating orthographies. But two specific arguments, those dealing with etymology and homonyms, are of particular relevance to a discussion of reading comprehension and regularized (a phonetic) orthography.

It is possible to conclude from a review of the literature that discussions of English spelling are valueless because of their past lack of productive change. It is hardly a justification for research that spelling reform attempts of the past are 'fascinating' (Hodges, 1964). On the other hand it is also rather unscientific to assume that English orthography should not be anything other than what it presently is.

Gelb (1952) concluded his discussion of spelling reform as follows:

> "We have come to the end of our speculation on the future of writing. I am fully aware how vulnerable this chapter is to criticisms from various quarters. Traditionalists will decry it as another useless proposal to change the status quo. Professional scholars will bemoan my cursory treatment of an important subject. I am not much affected by the traditionalistic outbursts against the reformers. Were it not for the reformers, the traditionalists, dressed in skins and feathers, would still be living in caves and would have nary a chance to talk or write about the 'pestilent heresy of reform' [p. 247]."

Vachek (1973) stated, "Time is not yet ripe for a definitive conclusion to the possibility and feasibility of a spelling reform of English [p. 69]."

Should a revision of the orthography occur, it would be hoped that empirical research would contribute to its proper direction. Should research justify things as they are, it might be possible in so doing to contribute some knowledge to a "difficult and intricate matter about which we as yet know all too little" (Gleason, 1961, p. 424).

There are certain recent experimental investigations which have bearing on the subject of orthographic revision.

Recent Experimental Investigations

Block (1973) has summarized the research done with the Initial Teaching Alphabet. That research indicates in the beginning stages of reading an orthography based on phonetic principles is more easily learned than traditional orthography. Oliver, Nelson, and Downing's (1972) conclusion was essentially the same.

Gillooly (1973) also concurred that, in the early stages of learning to read, phonetic writing systems have an advantage over traditional orthography, but at the intermediate levels children reading traditional orthography seem to have an advantage in terms of reading speed and that for mature readers, writing system characteristics no longer seem to exert any appreciable influence on the act of reading. Gibson (1970), after discussing a word-sorting task for first grade children, indicated the belief that the detection of

common spelling patterns across items is the result of the search for and the resultant discovery of an invariant pattern in the stimulus array. Oliver et al (1972) determined that children were more able to correctly assemble words when presented in orthographies providing graphic cues than in traditional orthography. Though there appear to be indications in the research findings that a phonetic orthography may facilitate initial acquisition of reading skills, the question of optimality for the mature reader remains.

Murrell and Morton (1974) in a study of word recognition and morphemic structure with adults concluded that the process of recognizing a word involves assigning it a linguistic unit with specific semantic associations, i.e., a morpheme. Jarvella and Snodgrass (1974) also reported on recognizing stem morphemes in printed words by what may be considered mature readers and reported that 'same' judgments were faster than 'different' judgments when the stem was spelled in the same way in both words, regardless of pronunciation, (e.g., infer-inference) than when it was spelled and pronounced differently (e.g., retain-retention). These studies suggest that an orthography based solely on phonemic principles would not be an advantage.

On the other hand, as early as 1940 Carroll (1940) reported, "Concerning the effect of Latin study on morpheme knowledge and on vocabulary, we have the paradoxical situation that whereas Latin definitely influences the ability to recognize morphemes and the knowledge of their meanings, it has no necessary effect on English vocabulary." Shepherd's (1974) review of the research on the

relation between the meanings of morphemes and the meanings of English derivatives concluded as follows:

> "1. The meanings of bound bases and the affixes which combine with them to form derivatives are not easily defined and the meanings of these morphemes are not strongly related to the meanings of English derivatives which are composed of these elements.
>
> 2. The meanings of affixes which combine with English-word bases to form derivatives are strongly related to the meanings of English derivatives which are composed of these elements."

Based on their attempts to develop a computer program for the automatic morphological analysis of complex English words, Chapin and Norton (1968) reported " . . . there is far greater homography with English prefixes than with suffixes, to the extent that the value of prefixational analysis is questionable [p. 17]."

Summary

Hodges (1972) indicated that there are three basic views of English spelling: (1) English orthography is irrational; (2) English orthography is a patterned but incomplete system; (3) English orthography is nearly optimal for its purposes.

Those who consider traditional English orthography to be irrational often point to its lack of a "one symbol for one sound" relationship (Story, 1907; Fries, 1963). Those who consider traditional orthography to be optimal often point to what Oswalt (1973) called its "greater etymological transparency" and its capacity to distinguish between homophones (homonyms) (Hodges, 1964).

It must be noted that those who advocate spelling reform often speak in terms of learning to read while the prime focus of the advocates of the optimality of traditional orthography is on the mature user of the language. If the difficulty encountered in learning to read traditional English orthography is more than counterbalanced by increased utility at more advanced levels of reading development, then it would seem any orthographic revisions along phonetic principles would be inappropriate. If, however, mature readers do not use etymological and "homonymical" cues, then it may be appropriate to consider orthographic revision based on phonetic principles. Considerable research concerning beginning reading and the use of regularized orthography is emerging, particularly from studies conducted with the Initial Teaching Alphabet. The question of meaning reduction for mature readers due to loss of homophones and morphological relations in a regularized orthography is in need of investigation.

The Problem to be Investigated

The purpose of this study was to compare mature readers' comprehension of text presented in traditional orthography with those same readers' comprehension of text presented in a regularized orthography. A review of the literature indicated that homophones and etymological considerations should be important aspects of such a comparison. The problems to be investigated were stated as formal, null hypotheses as follows:

1. There will be no significant difference in mature readers' comprehension of text presented in traditional orthography and those same readers' comprehension of text presented in a regularized orthography.

2. There will be no significant difference in mature readers' comprehension of passages in traditional orthography containing a larger-than-average number of homophones (e.g., bear-bare) and passages containing a smaller-than-average number of homophones when those passages are transliterated into a regularized orthography.

3. There will be no significant difference in mature readers' establishment of meaning relationships between words presented in traditional orthography (e.g., sane-sanity) and mature readers' establishment of meaning relationships between words presented in a regularized orthography.

4. There will be no significant difference in comprehension of text presented in a regularized orthography for mature readers receiving instruction and practice in that regularized orthography and mature readers receiving no instruction and practice in that regularized orthography.

5. There will be no significant difference in comprehension of text presented in traditional orthography for mature readers receiving instruction and practice in a regularized orthography and mature readers receiving no instruction and practice in that regularized orthography.

In addition to the formal hypotheses, answers to two additional questions were sought. The two questions did not bear directly on

the investigation at hand, but it was judged that their relevance to future investigations warranted their inclusion.

1. Would alternate forms of a standardized reading test in traditional orthography remain equivalent in difficulty when transliterated into a regularized orthography?

2. Would students receiving instruction and practice in a regularized orthography have different attitudes towards spelling change than students not receiving such instruction and practice?

CHAPTER II

METHOD

Subjects

The subjects were 97 upper track,[7] twelfth grade, English students at the South Campus of Waukesha High School, Waukesha, Wisconsin. There were four classes of 25, 30, 13, and 29 subjects each. Due to attrition the total number of subjects was reduced to 78, with 20, 23, 12, and 23 in the respective classes. Data from these 78 subjects are reported. For purposes of the study a guideline of "a grade twelve student reading at least at a 12.0 grade level" was used to define a mature reader. None of the subjects from the original pool was eliminated from the study because of the 12.0 reading level definition.

Student class schedules did not allow random assignment of individual subjects, therefore whole classes were randomly assigned to experimental and control groups. Group 1, Group 2, and Group 4 were upper track English classes. Group 3 was an English honors class, making it different in both size and demonstrated achievement. Though Group 3 made the statistical analysis more complex, all four groups met the mature reader criterion.

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[7] In this high school, English students were grouped heterogeneously. The subjects in this study were in the above average, or upper track, classes.

Design of the Study

The basic design of the study is summarized in the schema that follows:

	Group 1	Group 2	Group 3	Group 4
Pretest	T. O.*	T. O.	T. O.	T. O.
Treatment	X	X		
Posttest	T. O.	R. O.**	R. O.	T. O.

*T. O. represents test forms in traditional orthography
**R. O. represents test forms in regularized orthography

All four groups were given pretests in traditional orthography. Group 1 and Group 2 received instruction and practice in a regularized orthography. Group 3 and Group 4 received instruction typically received in Grade 12 English classes. Group 1 and Group 4 received posttests in traditional orthography. Group 2 and Group 3 were given posttests in a regularized orthography.

Group 1 served to test hypothesis number five concerning the possible negative effects of the treatment.

Group 2 served to test hypotheses numbers one, two, and three. These hypotheses dealt with the effects of the regularization of traditional orthography.

Group 3 served to test hypothesis number four concerning the effectiveness of the treatment.

Group 4 served as the control group.

Procedure

Testing

The subjects were pretested with the comprehension section of the Gates-MacGinitie Reading Tests, Survey F, Form 1 or Form 2 in traditional orthography.

Two weeks after pretesting, Group 1 and Group 2 were given four days of instruction and practice in the principles of a regularized orthography (see Appendix A). Group 3 and Group 4 received instruction typical of twelfth grade English classes.

Group 1 and Group 4 were posttested with alternate forms of the comprehension section of a standardized reading test in traditional orthography.

Group 2 and Group 3 were posttested with alternate forms of the comprehension section of a standardized reading test transliterated into a regularized orthography.

All pretests and posttests were administered and timed as per the instructions in the Teacher's Manual for the Gates-MacGinitie Reading Tests, Survey F, with two additions:

1. All subjects received these additional instructions: "If you find an item particularly difficult, do not spend a great deal of time on it; leave it and go on to the next item or guess and go on to the next item. When you have completed the rest of the test, return to the item and check it."
2. Just prior to posttesting, Group 3 received five minutes of instruction in the principles of the regularized orthography.

This instruction was provided to help assure the subjects' positive response to the task.

Immediately following the timed reading comprehension test all subjects were given an untimed test of morphemic relationships. Group 1 and Group 4 received a form written in traditional orthography. Group 2 and Group 3 received a form written in a regularized orthography.

The third instrument administered in the posttest situation was an untimed survey of attitude toward spelling change.

The time for administering the pretest including instructions was thirty minutes. The time for administering the posttests was forty to forty-five minutes.

Materials

Three types of instructional materials were used with the experimental groups. The students first received materials which indicated the sound-symbol relationships of the regularized orthography, that is, a statement of the basic principles of the orthography and a list of key words (see Appendix B). Secondly, the students received a series of one- to four-page reading selections. These selections ranged in reading difficulty from about Grade 3 to Grade 5 in the first class period to materials transliterated from a Grade 12 English text in the fourth class period (see Appendix C). The third type of instructional materials was a copy of the Dolch sight word list transliterated into the regularized orthography (see Appendix D).

Students in the control groups were presented lessons considered to be "typical" of Grade 12 English instruction. Topics for discussion included history of the English language, dialects, and language acquisition. A film on the history of the English language and a record on dialects, both from the school's English Learning Center, were used as part of the control group's instructional program.

Transliteration of Materials

Orthography. The regularized orthography used in this study was developed by the investigator (Carvell, 1973) and operates on the following principles:

Consonants

1. Consonant graphemes (letters) and sounds remain essentially the same.
2. The symbols "q" and "x" are not used.
3. "C" is not used as an individual letter.
4. The digraphs are shown to represent one sound by overlining:

$\overline{ch}$	as in child
$\overline{sh}$	as in shall
$\overline{ng}$	as in sing
$\overline{zh}$	as in measure
$\overline{th}$	as in thing
$\overline{\text{th}}$	as in the

Vowels

1. Simple ("short") vowels are:

   a, e, ɪ, o, u (no dot over short ɪ)

   $\overline{aw}$ as in law

   $\overline{oo}$ as in foot

2. Complex ("long") vowels are:

   á, é, í, ó, ú

   $\overline{ou}$ as in loud

   $\overline{oɪ}$ as in coin

3. The schwa is used in these ways:

   A. As a "reduced" or "non-vowel" before l, m, n, r (table, bottom, eaten, lever)

   B. With "r" to function as a full vowel (work, hurry)

   C. In the past morpheme, as in "wanted"

   D. In the plural morpheme, as in "glasses"

Pilot studies conducted by the investigator using words in isolation and oral reading fluency indicated that overlining was not generally required for mature readers.

Other features of traditional orthography such as capitalization, punctuation, words, abbreviations, contractions, paragraphs, etc., were retained in the regularized orthography used in this study.

Pronunciation. The two sources to which the investigator most often referred for the transliteration of the materials were Webster's

New Collegiate Dictionary (1973) and Chambers Twentieth Century Dictionary (1973). The Oxford Advanced Learner's Dictionary of Current English (Hornby, 1974) and A Pronouncing Dictionary of American English (Kenyon and Knott, 1953) were also consulted.

The investigator's ideolect is a variety of the General American dialect of the English language.

Treatment

The treatment consisted of four 50-minute class periods in which instruction and practice in the principles of a regularized orthography were presented. Instruction the first day included a lecture on the sound-symbol relationships of the orthography, discussion, and silent reading. Subsequent class periods consisted of oral reading in both small and large groups, practice on sight words, and silent reading. Subjects read articles two to four pages in length and answered comprehension questions in all four class periods. Subjects reported spending little or no time practicing with the orthography outside of the regularly-scheduled class periods.

Instruments

Four data-gathering instruments were used in this study:

1. The Comprehension Section of the Gates-MacGinitie Reading Tests (Gates and MacGinitie, 1969), Survey F, Forms 1 and 2 in traditional orthography.
2. The Comprehension Section of the Gates-MacGinitie Reading Tests, Survey F, Forms 1 and 2 transliterated into a regularized orthography.

3. A Test of Morphemic Relationships developed by the investigator.
4. An Opinions about Spelling Change attitude survey developed by the investigator.

Gates-MacGinitie Reading Tests, Survey F, Forms 1 and 2, Comprehension Section

This test was selected on the basis of its format, favorable reviews (Buros, 1972), general acceptance (Guthrie, Seifert, Burnham and Caplan, 1974), and its average alternate form reliability of .85. Both forms were prepared in a typewritten format in traditional orthography (see Appendix E). Both forms were transliterated into a regularized orthography (see Appendix F). (See Appendix G for test reliability data.) The face validity of the forms in regularized orthography was based on the judgment of the investigator.

Test of Morphemic Relationships

Venezky (1967), in his discussion of orthography and spelling-sound relationships, stated "given that a certain general pattern is constructed to account for a spelling-sound relationship, the question remains to be answered is: 'Does the literate actually use this pattern?'" In the entire discussion of etymology and the etymological transparency of traditional orthography, the question which remains unanswered is: "Does the literate actually use the visual cues?" The morphemic relationships test is an attempt to answer that question.

The Test of Morphemic Relationships is a sixteen-item test developed by the investigator. The test has four categories consisting of four items each: Visually Similar-Similar in Meaning (e.g., telegraph-telegraphy), items 1, 5, 13, and 15; Visually Similar-Dissimilar in Meaning (e.g., inside-insidious), items 3, 6, 8, and 12; Visually Dissimilar-Similar in Meaning (e.g., legal-loyal), items 2, 7, 9, and 14; and Visually Dissimilar-Dissimilar in Meaning (e.g., dindle-serve), items 4, 10, 11, and 16. The test has a form in traditional orthography (see Appendix H) and a form in a regularized orthography (see Appendix I). (See Appendix J for test reliability data.) The face validity of the Test of Morphemic Relationships was based on the judgment of the investigator.

Opinions about Spelling Change

The Opinions about Spelling Change (see Appendix K) is an attitude survey consisting of eight statements pertaining to English spelling. (See Appendix L for test reliability data.) Items 1, 3, 7, and 8 are statements considered to reflect a positive attitude toward spelling change. Items 2, 4, 5, and 6 are statements considered to reflect a negative attitude toward spelling change. The possible responses for each item were strongly agree, agree, undecided, disagree, and strongly disagree. The face validity of the Opinions about Spelling Change attitude survey was based on the judgment of the investigator.

The results of this attitude survey have no direct bearing on the investigation at hand. The justification for the inclusion of

an attitude survey is in the preliminary nature of this investigation.

The very nature of empirical study implies the possibility that positive results may not be produced. The concern becomes complex if learning may be improved at the expense of negative attitudes toward the learning process (Smith and Barrett, 1974). The survey was included because drastic differences in attitude, either positive or negative, between experimental and control groups could cause reconsideration of aspects of related investigations in the future.

Data Analysis

Because individual subjects were not randomly assigned to experimental and control groups, and because Group 3 differed in size and demonstrated achievement, an analysis of covariance, using the pretest as the covariate, was used to analyze results from the comprehension section of the reading test. Popham and Sirotnik (1973) point out the difficulties of the manipulation of students for experimental purposes and the resulting necessity of dealing with pre-existing student groups. Although they emphasize that analysis of covariance cannot completely overcome the dangers inherent in dealing with pre-existing groups, Popham and Sirotnik consider analysis of covariance to be a powerful technique which "allows the researcher to study the performance of several groups which are unequal with regard to an important variable [in this study's case, the reading comprehension pretest score] as though they were equal in this respect [p. 205]."

Analysis of variance was used to compare data from the morphemic relationships test and the attitude survey.

Post hoc comparisons of the data (Hays, 1973) were made where a preliminary analysis of covariance (or variance) and F test showed overall significance.

Data from the homophone analysis were first compared on a percentage/ratio basis, then scores were weighted and the adjusted scores analyzed using t tests.

A .05 level of significance was established for the rejection of the null hypotheses.

CHAPTER III

RESULTS, DISCUSSION, AND CONCLUSIONS

Introduction

An ancillary concern in this study was the equivalence of the alternate forms of the Gates-MacGinitie Reading Tests, Survey F, after transliteration into a regularized orthography. Posttest results which compared Group 2 subjects who had taken Form 1 to Group 2 subjects who had taken Form 2 showed no significant difference in test forms ($t = 0.4563$, $df = 21$). Combining all students who took the posttest in a regularized orthography and comparing Form 1 to Form 2 also showed no significant difference in the test scores ($t = .5599$, $df = 33$). The finding of no significant difference in test form scores allowed the pooling of Form 1 and Form 2 scores thus eliminating the need to subdivide the groups based on the form of the test taken in the pretest.

Because of the preliminary nature of the investigation reported in this study and the small number of subjects, all conclusions must be considered tentative. More important than the tentative conclusions are the implications for further research.

In this chapter each hypothesis is restated, relevant findings are reported, the findings are discussed, and tentative conclusions are drawn. Implications are discussed in Chapter 4.

The basic design included four groups. All groups were pretested with a reading comprehension test presented in traditional orthography. Group 1 and Group 4 received instruction typical of that received by twelfth grade English students. Group 2 and Group 3 received instruction and practice in the principles of a regularized orthography. Group 2 served to test hypotheses numbers one, two, and three. These hypotheses dealt with the effects of the regularization of traditional orthography. Group 3 served to test hypothesis number four concerning the effectiveness of the treatment. Group 1 served to test hypothesis number five concerning the possible negative effects of the treatment. Group 4 served as the control group.

Hypothesis 1

Hypothesis 1 was stated as follows: There will be no significant difference in mature readers' comprehension of text presented in traditional orthography and those same readers' comprehension of text presented in a regularized orthography.

Pretest results from the administration of the Comprehension Section of the Gates-MacGinitie Reading Tests, Survey F showed Group 3 to be significantly different from Group 4 ($p < .05$, $t = 3.0774$, $df = 33$). Group raw score means are presented in Table 1.

Table 1

Raw Score Means on Gates-MacGinitie Reading Tests,

Survey F, Comprehension Section

	Pretest		Posttest		
Group	Mean	S.D.	Mean	S.D.	n
1	42.4500	4.5593	43.1000	4.0769	20
2	41.9130	4.6506	34.4783	7.8501	23
3	47.6667	2.4618	39.0000	6.0902	12
4	42.9565	4.9679	41.5217	4.9255	23

Analysis of covariance with the pretest as the covariate therefore was used to examine the findings from the Gates-MacGinitie Reading Tests, Survey F, Comprehension Section. Results of the analysis are presented in Table 2.

Table 2

Analysis of Covariance Source Table for the Comprehension

Section of the Gates-MacGinitie Reading Tests, Survey F

Source	df	MS	F	p
Group	3	324.1	11.75	< .05
Error	73	27.58		

Post hoc analysis of the analysis of covariance showed that there was a significant difference between Group 2 and Group 4 ($p < .05$, $F = 2.730$, $df = 3,73$). Post hoc analysis revealed no significant difference between Group 1 and Group 4 and no significant difference between Group 2 and Group 3. In addition to the above, paired t tests were run on all four groups using pretest and posttest scores. The results were the same. There was no significant difference between pretest and posttest scores for Group 1 ($t = -0.6873$, $df = 19$); there was a significant difference between pretest and posttest scores for Group 2 ($p < .05$, $t = 4.987$, $df = 22$); there was a significant difference between pretest and posttest scores for Group 3 ($p < .05$, $t = 6.3658$, $df = 11$); there was no significant difference between the pretest and posttest scores for Group 4 ($t = 1.5254$, $df = 22$). Thus, there was a significant difference in mature readers' comprehension of text presented in traditional orthography and those same readers' comprehension of text presented in a regularized orthography. The raw scores for the comprehension of text in the regularized orthography were significantly lower than the raw scores for the comprehension of text presented in traditional orthography. These results are discussed more fully under Hypothesis 4 which is concerned with the effectiveness of the treatment.

The Comprehension Section of the Gates-MacGinitie Reading Tests, Survey F is a timed test. Few students taking the posttest in the regularized orthography completed all 52 items. In an attempt to eliminate the speed factor in comprehension, an analysis of covariance was also run using only the first 31 items of the Comprehension

Section of the Gates-MacGinitie Reading Tests, Survey F. All subjects completed through item 31. Group raw score means for the first 31 items are presented in Table 3.

Table 3

Raw Score Means on the First 31 Items of the Gates-MacGinitie Reading Tests, Survey F, Comprehension Section

	Pretest		Posttest		
Group	Mean	S.D.	Mean	S.D.	n
1	27.2500	2.3592	27.8500	2.2070	20
2	27.6087	2.1050	25.0000	3.0151	23
3	30.1667	0.9374	28.3333	1.7233	12
4	27.3043	2.6703	26.8696	2.6338	23

The results of the analysis of covariance on the first 31 items are shown in Table 4.

Table 4

Analysis of Covariance Source Table

for the First 31 Items of the Comprehension Section

of the Gates-MacGinitie Reading Tests, Survey F

Source	df	MS	F	p
Group	3	35.23	6.56	<.05
Error	73	5.372		

Post hoc analysis of the data for 31 items also showed that there was a significant difference between Group 2 and Group 4 ($p < .05$, $F = 2.730$, $df = 3,73$). That is, there was a significant difference in mature readers' comprehension of text presented in traditional orthography and those same readers' comprehension of text presented in a regularized orthography when the speed factor was removed. Even with speed as a factor removed the raw scores for the comprehension of text presented in the regularized orthography were significantly lower than the raw scores for the comprehension of text presented in traditional orthography.

Hypothesis 1 is thereby rejected. Under the conditions established in this study there was a significant difference between mature readers' comprehension of text presented in traditional orthography and those same readers' comprehension of text presented in a regularized orthography, both when speed was and was not a

major factor. This conclusion must be considered in the light of the findings reported under Hypothesis 4.

Hypothesis 2

Hypothesis 2 was stated as follows: There will be no significant difference in mature readers' comprehension of passages in traditional orthography containing a larger-than-average number of homophones (e.g., bear-bare) and passages containing a smaller-than-average number of homophones when those passages are transliterated into a regularized orthography.

One of the primary arguments against orthographic revision based on phonetic principles is that the visual differences in homophones would be lost. For example, in the regularized orthography used in this study "blue" and "blew" are both written "blu." A computer program was developed[8] in which a bank of 2,336 homophones was stored and, subsequently, both forms of the comprehension section of the Gates-MacGinitie Reading Test were probed for homophones. A list of all the homophones identified in a paragraph of the Gates-MacGinitie Reading Test, Survey F, Comprehension Section was made. (Appendix M is a list of all words identified as homophones.) The ratio of homophones to total words in each paragraph was also calculated (see Appendix N). The paragraphs containing the first 31 items were sorted into two categories: those containing a larger-than-average

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[8]The homophone program was written by Fred M. Jacobson of the Madison Academic Computing Center, Madison, Wisconsin

number of homophones and those containing a smaller-than-average number of homophones (see Appendix O). The homophone analysis rested on the assumption that should subjects' comprehension of text presented in regularized orthography be lower than their comprehension of text in traditional orthography, then it might be expected the subjects should do more poorly on paragraphs with a larger-than-average number of homophones than on paragraphs with a smaller-than-average number of homophones. There was a further assumption that the benefits of context clues would be equal across paragraphs or equalized over several paragraphs. Weighted raw score means for Group 2 and Group 4 are presented in Table 5.

Table 5

Weighted Posttest Raw Score Means on Items 1-31 of the Gates-MacGinitie Reading Tests, Survey F, Comprehension Section, with Paragraphs Separated on the Basis of Homophone-to-Word Ratio

	Paragraphs with a larger-than-average number of homophones		Paragraphs with a smaller-than-average number of homophones		
Group	Mean	S.D.	Mean	S.D.	n
2	13.1970	2.5862	12.5535	1.7748	23
4	13.9252	1.7707	13.7917	1.8733	23

A comparison of posttest results showed that there was no significant difference between Group 2 and Group 4 on the paragraphs containing a larger-than-average number of homophones ($t = 1.1143$, $df = 44$). There was a significant difference on the paragraphs containing a smaller-than-average number of homophones ($p < .05$, $t = 2.3013$, $df = 44$). The results reported here are particularly interesting considering the findings reported under Hypothesis 1 that there was a significant difference between Group 2 and Group 4 on the paragraphs including items one through 31 as a whole.

Hypothesis 2 is thereby rejected. The subjects did comparatively more poorly on the paragraphs containing a smaller-than-average number of homophones than on those containing a greater-than-average number of homophones. These findings are directly opposite to the contention that the loss of the visual dissimilarity of homophones would be a negative factor on the comprehension of text presented in a regularized orthography. The tentative conclusion drawn is that the presence or absence of homophones was not the factor to which the lower comprehension scores could be attributed.

Hypothesis 3

Hypothesis 3 was stated as follows: There will be no significant difference in mature readers' establishment of meaning relationships between words presented in traditional orthography and mature readers' establishment of meaning relationships between words presented in a regularized orthography.

Analyses of variance were run to compare the performance of each of the groups on all four subtests in the test of morphemic relationships. The analyses showed no significant difference on three of the subtests: Visually Similar and Dissimilar in Meaning (VS-DM, e.g., inside-insidious); Visually Dissimilar and Similar in Meaning (VD-SM, e.g., legal-loyal); and Visually Dissimilar and Dissimilar in Meaning (VD-DM, e.g., dindle-serve). The difference on the Visually Similar and Similar in Meaning subtest (VS-SM, e.g., telegraph-telegraphy) was significant beyond the .05 level. The results are shown in Table 6.

Table 6

Analysis of Variance Table for the

Morphemic Relationships Subtests

Subtest	Source	df	MS	F	p
VS-SM	Groups	3	4.413	6.928	$< .001$
	Error	74	.637		
VS-DM	Groups	3	.352	.723	.990
	Error	74	.468		
VD-SM	Groups	3	.032	.039	.990
	Error	74	.825		
VD-DM	Groups	3	.720	.686	.563
	Error	74	1.049		

The difference on the VS-SM subtest between Group 2 and Group 4 was significant beyond the .05 level ($F = 2.50$, $df = 3,74$). The difference between Group 1 and Group 4 was not significant ($F = 2.50$, $df = 3,74$). The difference between Group 2 and Group 3 was not significant ($F = 2.50$, $df = 3,74$). The specific item of the VS-SM subtest on which there was a significant difference was telegraph-telegraphy (see Appendix P).

Hypothesis 3 is partially rejected. There was a significant difference between mature readers' establishment of meaning relationships between words presented in traditional orthography and in a regularized orthography. Specifically the differences were significant in the category labeled visually similar and similar in meaning and the classic example, telegraph-telegraphy. Based on these findings the conclusion drawn is that the loss of the etymological transparency of morphemes when spelling is regularized has a negative effect on mature readers' establishment of meaning relationships between words.

Hypothesis 4

Hypothesis 4 was stated as follows: There will be no significant difference in comprehension of text presented in a regularized orthography for mature readers receiving instruction and practice in that regularized orthography and mature readers receiving no instruction and practice in that regularized orthography.

Post hoc examination of the data presented in Table 2 and Table 4 indicates that there was no significant difference between Group 2

and Group 3 ($F = 2.730$, $df = 3,73$). There was no significant difference between the group receiving four days of instruction and practice in the regularized orthography and the group which received only five minutes of instruction in that regularized orthography.

Hypothesis 4 is accepted as stated. These findings are relevant to the interpretation of the results reported under Hypothesis 1. The finding that the training period of four days produced no significant difference compared to five minutes of instruction is highly suggestive that the lower means on the test forms presented in the regularized orthography may possibly be attributed to an inadequate training period and not directly to the regularization of the orthography. Logic would preclude comparing four days of practice in one orthography to twelve years of practice in another orthography. Pilot studies with words in isolation and oral reading conducted by the investigator hinted strongly at the ultimate findings reported under Hypothesis 1 and Hypothesis 4, that is, that the level of comprehension would be lower, and that four days of instruction would not be commensurate with twelve years of schooling. Indeed the positing of Hypothesis 2 and Hypothesis 3, concerning homophones and morphemes, assumed the finding of a difference in Hypothesis 1. Thus it would appear that the focus of attention should be on the results reported under Hypothesis 2 and Hypothesis 3.

Hypothesis 5

Hypothesis 5 was stated as follows: There will be no significant difference in comprehension of text presented in traditional

orthography for mature readers receiving instruction and practice in a regularized orthography and mature readers receiving no instruction and practice in that regularized orthography.

Post hoc examination of the data presented in Table 2 and Table 4 indicates there was no significant difference between Group 1 and Group 4 ($F = 2.730$, $df = 3,73$). The tentative conclusion is that the treatment had no negative effect on mature readers' comprehension of text presented in traditional orthography. Hypothesis 5 is accepted.

Relative to Hypothesis 5, the answer to this additional question was sought: Would students receiving instruction and practice in a regularized orthography have different attitudes toward spelling change than students not receiving such instruction and practice? An eight-item attitude survey was administered to all groups. The results are presented in Table 7.

Table 7

Analysis of Variance Table for the Opinions about Spelling Change Attitude Survey

Source	SS	df	MS	F	P
Between	36.135	3	12.045	.890	NSD
Within	1001.160	74	13.529		
Total	1037.295	77			

Examination of the data presented in Table 7 indicates there was no significant difference in attitude toward spelling change between the groups receiving instruction in the regularized orthography and those receiving instruction typical of that routinely received by twelfth-grade English classes.

Thus the treatment produced no significant difference in the comprehension of text presented in a regularized orthography, produced no negative effects on the comprehension of text presented in traditional orthography, and produced no significant differences in attitude toward spelling change. The implications of these results are discussed in Chapter 4.

CHAPTER IV

SUMMARY, LIMITATIONS, AND IMPLICATIONS

Summary

A discussion as to whether or not traditional English orthography is the optimal writing system for the English language has been carried on for some four hundred years. The primary argument for change is that the present orthography does not have a one-to-one sound-symbol relationship in its spelling. The proponents of spelling reform therefore generally have recommended a more phonetic, or regularized, spelling. The focus of the concern of the spelling reformers has often been on illiteracy and the difficulty of learning traditional orthography. Those who consider traditional orthography to be adequate, if not optimal, contend that traditional orthography allows for etymological transparency and homophones. These aspects of traditional orthography would be lost if English spelling were to be based solely on a phonetic principle. Defenders of traditional orthography contend that such losses would reduce the mature reader's facile use of the orthography.

The purpose of this study was to compare mature, competent, readers' comprehension of text presented in traditional orthography with those same readers' comprehension of text presented in a regularized orthography. Answers to the following questions were sought:

1. Is mature readers' comprehension of text hindered by the regularization of traditional orthography?

2. Does the loss of the visual differences in homophones result in reduced comprehension of text by mature readers when traditional orthography is regularized?

3. Does the loss of visual similarities in morphemes of similar meaning result in loss of meaning relationships for mature readers between words when traditional orthography is regularized?

Two considerations were of particular concern in this study: 1. When traditional orthography is regularized, is any loss of meaning attributable to the loss of the visual dissimilarity of homophones? 2. When traditional orthography is regularized, is any loss of meaning attributable to the loss of visual similarity in morphemes? Loss of meaning was considered at two levels: morphemic relationships and full text.

The problems to be investigated were stated as formal, null hypotheses as follows:

1. There will be no significant difference in mature readers' comprehension of text presented in traditional orthography and those same readers' comprehension of text presented in a regularized orthography.

2. There will be no significant difference in mature readers' comprehension of passages in traditional orthography containing a larger-than-average number of homophones (e.g., bear-bare) and passages containing a smaller-than-average number of homophones when those passages are transliterated into a regularized orthography.

3. There will be no significant difference in mature readers' establishment of meaning relationships between words presented in traditional orthography (e.g., sane-sanity) and mature readers' establishment of meaning relationships between words presented in a regularized orthography.

4. There will be no significant difference in comprehension of text presented in a regularized orthography for mature readers receiving instruction and practice in that regularized orthography and mature readers receiving no instruction and practice in that regularized orthography.

5. There will be no significant difference in comprehension of text presented in traditional orthography for mature readers receiving instruction and practice in a regularized orthography and mature readers receiving no instruction and practice in that regularized orthography.

In addition to the formal hypotheses, answers to two additional questions were sought. The two questions did not bear directly on the investigation at hand, but it was judged that their relevance to future investigations warranted their inclusion.

1. Would alternate forms of a standardized reading test in traditional orthography remain equivalent in difficulty when transliterated into a regularized orthography?

2. Would students receiving instruction and practice in a regularized orthography have different attitudes towards spelling change than students not receiving such instruction and practice?

The subjects were 97 upper track, twelfth grade, English students at the South Campus of Waukesha High School, Waukesha, Wisconsin. There were four classes of 25, 30, 13, and 29 subjects each. Due to attrition the total number of subjects was reduced to 78, with 20, 23, 12, and 23 in the respective classes. Data from these 78 subjects are reported. For purposes of the study a guideline of "a grade twelve student reading at least at a 12.0 grade level" was used to define a mature reader. None of the subjects from the original pool was eliminated from the study because of the 12.0 reading level definition.

The basic design of the study is summarized in the schema that follows:

	Group 1	Group 2	Group 3	Group 4
Pretest	T. O.*	T. O.	T. O.	T. O.
Treatment	X	X		
Posttest	T. O.	R. O.**	R. O.	T. O.

*T. O. represents test forms in traditional orthography
**R. O. represents test forms in regularized orthography

All four groups were given pretests in traditional orthography. Group 1 and Group 2 received instruction and practice in a regularized orthography. Group 3 and Group 4 received instruction typically received in Grade 12 English classes. Group 1 and Group 4 received posttests in traditional orthography. Group 2 and Group 3 were given posttests in a regularized orthography.

Group 1 served to test hypothesis number five concerning the possible negative effects of the treatment.

Group 2 served to test hypotheses numbers one, two, and three. These hypotheses dealt with the effects of the regularization of traditional orthography.

Group 3 served to test hypothesis number four concerning the effectiveness of the treatment.

Group 4 served as the control group.

Two weeks after pretesting, Group 1 and Group 2 were given four days of instruction and practice in the principles of a regularized orthography. Group 3 and Group 4 received instruction typical of twelfth grade English classes.

Group 1 and Group 4 were posttested with alternate forms of the comprehension section of a standardized reading test in traditional orthography.

Group 2 and Group 3 were posttested with alternate forms of the comprehension section of a standardized reading test transliterated into a regularized orthography.

Group 1 and Group 4 received a test of morphemic relationships presented in traditional orthography. Group 2 and Group 3 received a test of morphemic relationships presented in a regularized orthography. All subjects received an opinions about spelling change attitude survey. These instruments were administered only in the posttest situation.

The following findings were reported.

1. Under the conditions established in this study, there was a significant difference in mature readers' comprehension of text presented in traditional orthography and mature readers' comprehension

of text presented in a regularized orthography. The raw scores for the comprehension of text presented in a regularized orthography were significantly lower.

2. The presence or absence of homophones was not the factor to which the lower comprehension scores could be attributed.

3. There was a significant difference between mature readers' establishment of meaning relationships between words presented in traditional orthography and in a regularized orthography.

4. There was no significant difference between the group receiving four hours of instruction and practice in the principles of a regularized orthography and the group which received only five minutes instruction in that orthography.

5. The four hours of instruction and practice in the principles of the regularized orthography had no negative effects on mature readers' comprehension of text presented in traditional orthography.

6. There was no significant difference between raw scores on Form 1 and raw scores on Form 2 of a standardized test of reading ability transliterated into a regularized orthography.

7. There was no significant difference in attitudes toward spelling change between groups receiving instruction and practice in the principles of a regularized orthography and those not receiving such instruction and practice.

Limitations

The finding of significantly lower raw scores on the comprehension test with the text presented in a regularized orthography must

be considered relative to the finding that the treatment produced no significant increase in facility with the regularized orthography. Two problems are involved. One problem is based on a possible assumption that if the training period were adequate, comprehension of both orthographies would be equal. This of course is circular reasoning to those who contend that traditional orthography is near optimal for the mature reader. The problem does point to the need for some measure of mastery of the principles of an orthography apart from comprehension. The second problem is less complex. Group 3 demonstrated significantly higher raw scores on the pretest of reading comprehension. The strong possibility exists that the subjects in Group 3 were not only better readers but faster learners and that the treatment was not as ineffective as the data reveal. These considerations do point to the need for caution in making generalizations without considering the interrelationships of the hypotheses in this study.

A second limitation in the study involves the two assessment instruments developed by the investigator. Item correlations indicate the need for revision of certain items. Yet item correlations performed on the widely-used standardized test of reading comprehension tend to indicate the need for revision of certain items in it, also. The problem may simply be that there is not a large enough data base to provide an accurate item correlation. The second limitation, then, is the lack of demonstrated validity and reliability of the instruments developed by the investigator.

Implications

The finding of no significant difference on the Comprehension Section of the Gates-MacGinitie Reading Tests, Survey F between Group 2 which had received a four-day instructional period and Group 3 which had received only five minutes of instruction carries with it several implications. First of all it must be noted that though the raw score means for both Group 2 and Group 3 were significantly lower when the text was in the regularized orthography, the posttest mean of 34.48 for Group 2 converts to a Grade Score of 12.4. The posttest mean of 39.00 for Group 3 converts to a Grade Score of above 12.9. This information suggests that with relatively little instructional time research can be conducted with readers of a regularized orthography who surpass the guideline for defining a mature reader, that is, "a grade twelve student reading at least at a 12.0 grade level" (see Definition of Terms, p. 5).

The second implication of the finding of no significant difference between Group 2 and Group 3 and the subsequent conclusion that the treatment was ineffective is that a position which holds that reading comprehension is the same as orthographic mastery may be inappropriate. This investigator is not aware of an instrument which yields a subject's level of performance with traditional orthography as an entity apart from comprehension. Kolers (1975) reports that his research has shown that analyzing the graphemic aspects of a sentence can be distinguished experimentally from interpreting the message embodied in the graphemes. It appears that in the future an

instrument which will yield a performance level on the regularized orthography will have to be devised and administered prior to administering the comprehension test in the regularized orthography. Such a procedure presents a further problem. It should be expected that a subject's performance with an alternative orthography should be somewhat commensurate with his performance with traditional orthography. As indicated, the investigator is not aware of an instrument which provides a subject's performance level with traditional orthography. For example, is there assurance of mastery of punctuation marks prior to the administration of a comprehension test utilizing those punctuation marks? If traditional orthography operates on phonemic, morphemic and morphophonemic levels, is a student's knowledge of such levels assessed prior to the administration of a test of reading comprehension which utilizes those three levels? The implications strongly suggest the possibility that a subject's "failure to comprehend" a reading selection may not be due to lack of comprehension but rather it may be due to lack of mastery of the orthography--either regularized or traditional.

The findings based on the homophone analysis point to the need for additional research into the purported value of the presence of homophones in traditional English orthography. The data provide no definitive resolution to the historical arguments concerning orthographic revision. They do, though, suggest that homophones may not play as important a role in orthography as has been maintained historically. The act of transliterating

passages has pointed to the possibility of a need to redefine homophones. Certain word pairs in the singular (e.g., find-fine) are not homophones, but when pluralized they become homophonous (finds-fines). Other pairs become homophonous when -ing or -ed are added (e.g., codling-coddling; bard-barred). Considering the results of the very rudimentary Test of Morphemic Relationships used in this study, specific study should be given to words ending in "nt" and "nce" (e.g., print-prince; independent-independence) and their identical renderings when the "nt" words are pluralized (prints-prince may both be rendered prins). In other words, generalizations about all homophones may be inappropriate. There may be degrees of utility for various homophones. There may be little value in differentiating between "bear" and "bare," but etymological transparency may be obscured if the "w" in two is removed because of the loss of visual similarity between "two" and "twenty." The results from the morphemic relationships test, which tend to indicate that the loss of visual similarities in morphemes related in meaning has a negative effect on the establishment of meaning relationships between those morphemes, point to the need for additional investigations where morphemic relationships are the prime concern. The results of the simple sixteen-item instrument used in this study may be basis enough for a cautious attitude toward any spelling reform recommendations that would obscure the etymological transparency of traditional English orthography.

The results of the attitude survey, Opinions about Spelling Change, showed no significant difference between experimental and

control groups. These results may be stated in another way: The treatment did not result in negative attitudes on the part of the experimental groups. The results of the attitude survey do not tend to discourage further investigations.

Concluding Statement

In this study certain effects of the regularization of English orthography on mature readers' comprehension were investigated. Under the conditions established in this study, regularization of the orthography resulted in lower reading comprehension scores. It must be emphasized that the treatment did not produce a significant difference between the experimental group's comprehension of text presented in the regularized orthography and the control group's comprehension of text presented in the regularized orthography. In this study instruction and practice in the principles of a regularized orthography did not produce any significant difference in the experimental group's comprehension of text presented in regularized orthography nor did the attitudes of the experimental groups toward the subject of the investigation, spelling change, differ from the attitudes of the control groups after the treatment period. Tentative conclusions drawn indicate that in this study homophones did not play a significant role in the comprehension of full text but that the visual similarity of morphemes of similar meaning may have aided mature readers of traditional orthography in establishing meaning relationships between words. The conclusions reached were

tentative and not generalizable beyond the subjects and conditions of this study. The implications for further investigation were discussed.

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(Part 2 of 2 Parts)

READING COMPREHENSION AND REGULARIZED ORTHOGRAPHY

by
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Report from the Project on
Conditions of School Learning and Instructional Strategies

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APPENDIX A

PRINCIPLES OF THIS REGULARIZED ORTHOGRAPHY

CONSONANTS

1. Consonant graphemes (letters) and sounds remain essentially the same.
2. The symbols "q" and "x" are not used.
3. "C" is not used as an individual letter.
4. The digraphs are shown to represent one sound by overlining*:

$\overline{ch}$	as in child
$\overline{sh}$	as in shall
$\overline{ng}$	as in sing
$\overline{zh}$	as in measure
$\overline{th}$	as in thing
$\overline{\text{th}}$	as in the

VOWELS

1. Simple ("short") vowels are:
   a, e, ɪ, o, u (no dot over short ɪ)
   $\overline{aw}$ as in law (See "*Note" below.)
   o͞o as in foot
2. Complex ("long") vowels are:
   ȧ, ė, i̇, ȯ, u̇
   $\overline{ou}$ as in loud
   $\overline{oi}$ as in coin
3. The schwa is used in these ways:
   A. As a "reduced" or "non-vowel" before l, m, n, r (table, bottom, eaten, lever)
   B. With "r" to function as a full vowel (work, hurry)
   C. In the past morpheme, as in "wanted"
   D. In the plural morpheme, as in "glasses"

*NOTE: For mature readers it is not generally necessary to use the overlining.

KEY WORDS FOR PRONUNCIATION

CONSONANTS

b	bat
d	den
f	fat
g	get
h	hat
j	jet
k	keg
l	let
m	men
n	net
p	pat
r	rat
s	sat
t	tent
v	vent
w	wet
y	yet
z	zest
$\overline{ch}$	$\overline{ch}$at
$\overline{sh}$	$\overline{sh}$am
$\overline{ng}$	ra$\overline{ng}$
$\overline{th}$	$\overline{th}$ing
$\overline{\overline{th}}$	$\overline{\overline{th}}$at
$\overline{zh}$	mez$\overline{zh}$er (measure)

VOWELS

a	bak	(back)
å	båk	(bake)
e	bet	(bet)
ê	bêt	(beet)
ı	bıt	(bit)
i	bit	(bite)
o	got	(got)
ô	gôt	(goat)
u	but	(but)
û	bût	(boot)
$\overline{ou}$	l$\overline{ou}$d	(loud)
$\overline{oı}$	b$\overline{oı}$	(boy)
$\overline{aw}$	l$\overline{aw}$	(law)
o͞o	fo͞ot	(foot)
ə	tåbəl	(table)
	botəm	(bottom)
	ətən	(eaten)
	ləvər	(lever)
	wərk	(work)
	wontəd	(wanted)
	glasəz	(glasses)

NOTE: For mature readers it is not generally necessary to use overlining.

"Ī AM U MAN"
bi Mā MkNēr
Dımenshunz ın Rēdıng, SRA

Thār wər ōnlē ubout 750 Ponku Indēunz. Thā wər u jentəl pēpəl. Thā had nevər mād trubəl fōr thu wit man. Yet hē wuz drivıng them of thār land.

Thu Ponku lıvd ın Nebrasku. It wuz thu ōnlē hōm thā nū. But thu Y.S. govərnmunt sed thā must mūv tū Ōkluhōmu.

Standıng Bār wuz thu chēf uv thu Ponku. Hē wuz much upset at thu nūz.

"Thu Sū lıv ın Ōkluhōmu," hē sed. "Thā or our enumēz. Wē canot lıv with them. Wē wıl not gō."

Yet thā dıd gō. Sōljərz kām and hərdəd them tūgether. Thā mād them morch thu fīv hundrud mılz. It wuz u terıbəl jərnē. And thıngz wər nō betər at thu end uv ıt. Thār wuzn't ənuf food tū kēp them uliv. Sıknus wuz evrēwār. Standıng Bār'z ōn sun bēkām ıl and dīd.

Standıng Bār went tū thu wit men. Hē begd them tū let thu Ponku rētərn hōm. But thu wit men rēfyūzd.

Standıng Bār'z pāshuns wuz at an end.

"If wē stā hēr wē wıl storv," hē sed. "Ōr thu Sū wıl kıl us. Yet thu wit men rēfyūz tū let us lēv. And sō wē must gō without thār pərmıshun."

Thərtē Ponku set out, led bi Standıng Bār. Thu Chēf kārēd thu bōnz uv hız sun with hım.

Thā morcht fīv hundrud mılz tū Nebrasku. It took them fōrtē dāz. It wuz ərlē spring wen thā rēcht hōm.

Kwıklē thā bōrōd sēdz and tūlz frum frendz. Thā bēgan tū form. But nō sūnər wər thu krops planted than sōljərz upērd wuns mōr.

Standıng Bār and thu uthər Ponku wər urested. Thā wər chorjd with lēvıng Ōkluhōmu without pərmıshun.

Thu trıəl drū u lorj kroud. And that wuz wut Standıng

Bár wontəd. Hé stood up ın thu kórtrùm. He tərnd tú thu juj. Hé held out hız orm.

"Thıs hand ız not thu kulər uv yórz," hé sed, "but ıf İ pérs ıt İ wıl fél pán. Our blood wıl bé thu sám kulər. Yú or u man. And İ am u man. Thu sám God mád us bóth."

Thu hól rùm wuz silunt. Then mené wit men stood up. Without u werd thá shook thu hand uv Standıng Bár.

U wék láter thu juj gáv hız rúlıng. It sed that an Indéun ız u sıtuzun. Thu law prótekts hız rits. And nó wun kan tel hım wár tú lıv.

That rúlıng mád hıstóré. It wuz thu ferst bıg step tóerd gıvıng Indéunz thár fool rits.

# # #

Chek Yór Rédıng

1. Thu stóré sez that thu Ponku Indéunz wər u váré
   A. béyútıfool pépəl
   B. jentəl pépəl
   C. bráv pepəl
2. Thu Y.S. guvərmunt wuz mákıng them móv tú
   A. Òkluhómu
   B. Kentuké
   C. Nebrasku
3. Thu Ponku férd that ın thu nú land thá wood fás dánjər frum
   A. bad stórmz
   B. uthər Indéunz
   C. wild anıməlz
4. Standıng Bár'z sun did uv
   A. hunggər
   B. sıknus
   C. an aksıdent
5. Wen thu Ponku askt tú rétərn hóm, thu wit men
   A. gáv them pərmıshun
   B. tóld them tú wát
   C. réfyúzd tú ulou ıt

6. Az sůn az thu Ponku got hôm, thå bégan tů
   A. råz munė
   B. plant krops
   C. måk lawz
7. At hız trıəl, Standıng Bår måd hız spėch tů
   A. u jərė
   B. hız loıər
   C. thu juj
8. Thu mån point uv hız spėch wuz that an Indėun ız u
   A. formər
   B. lėdər
   C. pərsun
9. Wen hė fınısht spėkıng, menė wit men
   A. shook hız hand
   B. klapt and shoutəd
   C. wawkt uwå anggrılė
10. Thu juj růld that nô wun kood
   A. måk thu Ponku ôbå thu law
   B. bi ôr sel Ponku land
   C. tel thu Ponku wår tů lıv

1. B
2. A
3. B
4. B
5. C
6. B
7. C
8. C
9. A
10. C

Last Stand
bi Roı Bongorts
Dımenshunz ın Rêdıng, SRA

Wooden Leg wuz u vârê slêpê yung Indêun. Hız pêpel--thu Shian--had just held an awl-nit dans. And thu Sû kamp nekst dôr had had u portê. Wooden Leg had gawn tû ıt tû.

That môrnıng hê went tû thu rıver tû tâk u bath. Thu wether wuz hot and thu kûl woter felt good. After u wil hê kâm out and sat ın thu shâd. Sûn hê wuz sound uslêp.

Hê tôld wut hapend nekst:

"U lot uv noız wôk mê. Sumthıng terıbel wuz hapenıng ın thu kamp. İ herd shots and wımun skrêmıng. Ôld men wer kawlıng: 'Sôljerz or hêr! Yung men, gô out and fit them!'

"İ ran hôm and got redê fôr batel. Kwıklê İ poot on nû klôz. Then İ got mi pânts and mırer. İ drû u blû serkel uround mi fâs. İ pânted red and yelô ınsid ıt. İ kômd mi hâr. İ shood hav brâded ıt nêtlê. But thâr wuz nô tim.

"Mi fother kawt mi best hôrs. Hê strapt u blangkıt on ıt. 'Herê!' hê tôld mê. İ rôd of az fast az I kood."

Sôljerz wer utakıng thu Sû kamp. Wooden Leg dıskrıbd port uv thu fit:

"Lıtel Berd and İ wer châsıng u sôljer. Wê wer hıtıng hım wıth our pônê wips. Wê dıd not trî tû kıl hım. But hê ternd and fierd. Thu boolut hıt Lıtel Berd'z leg. At wuns İ hıt thu wit man wıth thu hevê handel uv mi pônê wıp. Hê fel tû thu ground. İ dû not nô wut bêkâm uv hım."

Sûn thu Indêunz drôv thu sôljerz ukros thu rıver. Then kâm u shout: "Môr sôljerz kumıng frum thu nôrth! Thu Indêunz rôd that wâ.

Thēz sōljerz, led bi Jenerel Kuster, wer not redē. Thā wer fritend and kunfyūzd. Sum dropt thār gunz and rāzd thār handz. But thu Indēunz took nō prizunerz.

Wooden Leg told uv thu last mōmunts uv thu batel:

"U Shian chēf kawld out 'Kum! Wē kan kil awl uv them!' Wē ran fōrwerd, shouting and jumping. And then awl thu wit men went krāzē. Insted uv shūting us, thā ternd thār gunz on themselvz."

That wuz thu fāmus Kuster'z Last Stand. Nō wun nōz fōr shūr wut hapend thār. Thu Indēunz' stōrēz did not awl ugrē. And thār wuz nō wun tū tel thu wit man'z sid. Kuster had led 225 men intū thu utak. Not wun rēternd.

Houever, it wuz thu Indēunz' last stand tū. It wuz thu last majer viktorē thā ever wun.

# # #

Chek Yōr Rēding

1. On thu mōrning uv thu batel, Wooden Leg wuz fēling vārē
   A. anggrē
   B. hunggrē
   C. slēpē
2. Wen thu batel bēgan, hē wuz
   A. at thu river
   B. in thu Sū kamp
   C. hōm in bed
3. Wun thing Wooden Leg did <u>not</u> dū wen geting redē fōr thu batel wuz
   A. poot on nū klōz
   B. pānt hiz fās
   C. brād hiz hār

4. Wooden Leg'z fother brawt him hiz
   A. gun
   B. hôrs
   C. shúz
5. Wooden Leg and Litel Berd utakt u sôljer with
   A. åróz
   B. wips
   C. klubz
6. Wooden Leg bèkâm anggrè wen thu sôljer
   A. kikt hiz hôrs
   B. shouted at him
   C. shot Litel Berd
7. Thu ferst grûp uv sôljerz wuz
   A. sêld in u kâv
   B. driven ukros thu river
   C. trapt and kild
8. Wooden Leg sed that Kuster'z sôljerz wer môr
   A. prèpârd than thu ferst grûp
   B. fritend than thu ferst grûp
   C. krûel than thu ferst grûp
9. Wooden Leg sed that wen thu Indêunz mâd thâr big chorj, Kuster'z men
   A. shot themselvz
   B. kawld fôr help
   C. thrú thâr gunz
10. Thu stôrè sez that this batel wuz thu last stand uv
   A. Kuster but not thu Indêunz
   B. thu Indêunz but not Kuster
   C. both Kuster and thu Indêunz

1. C
2. A
3. C
4. B
5. B
6. C
7. B
8. B
9. A
10. C

Peshtigó

bi Jon V. Mórıs

Dımenshunz ın Rédıng, SRA

Peshtıgó wuz thu lorjust toun ın that port uv Wıskonsın. It had mór than tú thouzund pépel. It wuz u grát lumber senter, rıngd with thık fórusts.

Thár had ben lıtel rán that sumer uv 1871. Thu fórusts wer terıblé dri. Bi thu mıdel uv Awgust éven thu swawmps wer drid up. This had never ben nón tú hapen béfór.

Erlé ın September fierz wer sén ın thu swawmps. Nó wun gáv them much thawt. Wen such fierz hapend, rán yúzhyúelé poot them out. But nó rán fel. Evré dá thu fierz át déper, and thık blak smók fıld thu toun.

Thu ski at nit wuz órınj. Thu tawl trés lookt blak ugenst ıt. Thu swawmps wer só hot that men kood not get nér them. Pépel prád fór rán.

Erlé ın Október thu fierz bégan tú krép out uv thu swawmps. U tré bernd hér, u born thár. Men werkt dá and nit tú kuntról thu flámz. Thá sukséded--until Október 8.

It wuz u chılé Sundá. Thu smók wuz só thık thu sun kood not bé sén. In thu afternún fin grá ashez bégan tú fawl. That wuz u bad sin. It ment that u lorj fórust wuz bernıng sumwár.

At seven ó'klok pépel went tú cherch fór thu évnıng servıs. On thár wá hóm thá herd u stránj sound, lik u foruwá trán. It grú until ıt sounded lik thunder.

At nin ó'klok thu cherch belz rang u fier ulorm. Flıng sporks had storted fierz ın toun. Evré ábel-bodéd man ran tú fit thu blázez.

Shórtlé béfór ten ó'klok thu rór békám louder. U wawl uv fier rólıng tóerd thu toun az fast az u man kood trot.

Men and wımun ran ubout wildlė, looking fôr u wå tů eskåp. It wuz tů lât. U fıerė wınd struk. It nokt doun houzəz and rıpt up trėz. Thu flåmz folôd.

Lıvıng thrů that wuz just u matər uv luk. Thôz hů kood get ıntů th rıvər had u chans. But ėvən thå wər not kumplėtlė såf. Thu hėt uv thu flåmz kood kıl u man u hundrud yordz uwå. Pokuts uv gas awlsô past ôvər thu wotər. Pėpəl kawt ın them did frum lak uv år.

Thu brıj ukros thu rıvər wuz lôded wıth pėpəl. It kawt fiər at bôth endz and krasht doun. Menė did ın thu flåmz and uthərz dround.

Thu nitmår went on fôr ourz. It wuz nėrlė dawn bėfôr thu rıvərbangks wər kůl ėnuf tů wawk on.

Dawn rėvėld u shokıng sit. Peshtıgô had vanısht. Thu fôrust wuz gon. Thår wər nô bərdz, nô anıməlz. Ėvən thu fısh ın thu rıvər had ben kıld.

That afternůn u smawl bôt chugd up thu rıvər. It brawt fůd and klôthıng. It awlsô brawt thu nůz that menė smawlər tounz had ben wipt out.

Thıs fôrust fiər wuz thu lorjust and môst terıbəl ın Umerıku'z hıstərė. But ıt brawt akshun. Sevrəl yėrz låtər Konggrus set up thu Fôrust Sərvıs. And sô tůdå thouzundz uv fôrust rånjərz wawch ôvər Umerıku'z fôrusts, redė tů akt at thu fərst sin uv fiər. Thangks tů them, u trajudė lik Peshtıgô nėd never hapən ugen.

# # #

Chek Yôr Rėding

1. Thu bıg bıznus ın Peshtıgô wuz ın
   A. form prôdukts
   B. wood prôdukts
   C. melk prôdukts

2. 1871 wuz thu ferst yêr ın wıch pêpəl saw thu
   A. fôrusts stop grôıng
   B. rıver levəl fawl
   C. swawmps drî up
3. Thu grâ ashəz that fel on Peshtıgô shôd that sumwâr u
   A. fôrust wuz bərnıng
   B. swawmp wuz bərnıng
   C. born wuz bərnıng
4. Thu pêpəl on thâr wâ hôm frum cherch servısəz wər sərprizd bî
   A. an ôrınj glô ın thu skî
   B. u stranj rôrıng sound
   C. u shouər uv sporks
5. Thu fîər ulorm at nîn ô'klok wuz sounded bî thu
   A. toun kanun
   B. mıl wısəl
   C. cherch belz
6. Thu fîər uprôcht thu toun at ubout thu spêd uv u
   A. trotıng man
   B. râshôrs
   C. frât trân
7. Just bêfôr thu flâmz rêcht thu toun, thâr wuz u
   A. stranj sîlens
   B. strong wînd
   C. smawl ərthkwâk
8. Thu sâfust plâs tû bê dərıng thu fîər wuz
   A. ın u selər
   B. on thu brıj
   C. ın thu rıvər
9. Thu fîər lasted fôr ubout
   A. wun nît
   B. u nît and u dâ
   C. tû dâz
10. Sevrəl yêrz aftər thu Peshtıgô fîər, Konggrus
   A. set up u sərvıs tû prôtekt fôrusts
   B. mâd thu ârêu u nashunəl pork
   C. storted u studê uv yêrlê rânfawl

1. B
2. C
3. A
4. B
5. C
6. A
7. B
8. C
9. A
10. A

Mi Ferst Bufulo Hunt
bi Chef Luther Standing Bar
frum Dimenshunz in Reding, SRA

At last thu da urivd wen mi fother uloud me tu go on u bufulo hunt with him--and wut u proud boi I wuz. Tu rid sid bi sid with thu best hunterz uv thu trib, tu her thu teribel noiz uv thu grat herdz az tha ran, and then tu bring hom thu kil--thez wer thu most thriling events uv ene Su boi'z lif.

We awl rod slole toerd thu herd, wich on sit uv us had kum tugether, awltho befor tha had ben skaterd her and thar over thu plan. We kuntinyud riding slole until wun uv our lederz shouted "Ho-ko-he!" wich menz "Rede, go!"

Uwa I went, mi litel pone pooting awl he had intu thu ras. I heded strat intu thu herd. Then awl at wuns fel overkam me, and I lend upon mi pone'z bode and klucht him title. War wuz fother? War wuz I going? In thu kloud uv dust kikt up bi thu rasing bufulez I kood se nuthing.

But then in u momunt or so mi sensez bekam klerer. I kood her u shot nou and then, and I kood se thu herd begining tu brak up intu smawl bunchez. I kood not se mi fother or ene uv mi kumpanyunz yet, but mi fer wuz vanishing.

I let mi pone run, and prite sun I saw u yung kaf that lookt ubout mi siz; I wuz stil tu smawl tu go after u foolgron bufulo.

I wuz stil bak uv thu kaf, being unabel tu get ulongsid uv it. I wuz angkshus tu get u shot, yet ufrad tu tri, for I wuz stil vare nervus. Wil mi pone wuz making awl sped tu kum ulongsid, I chanst u shot--and tu mi serpriz thu ard landed. But it onle slod thu animel slitle. I shot for mor arez befor it wuz doun. I wuz not proud uv mi morksmunship, but after awl, it wuz onle mi ferst hunt.

Ì jumpt frum mi pônè and stood looking at thu animel on thu ground. Mi ferst bufulò! Ì wonted evrèwun tù nò that Ì, Òtu K'tè, had kild u bufulò--but it lookt az if nò wun wood nò, fôr I wuz for frum evrèwun els. In mi dèterminâshun not tù giv up until I had wun mi bufulò, I had not nòtist hou for I had kum.

Then sudenlè Ì herd mi fother'z vois kawling, "Òtu K'tè, wâr or yù?" I kwiklè jumpt on mi pônè and rôd to thu top uv u litel hil nèrbi. Fother saw mè and kâm tù mè at wuns.

Hè rôd up tù mè with u glad smil on hiz fâs, ekspekting mè tù rètern with him tù hiz kil. Az hè kâm up, Ì sed as kawmlè az Ì kood, "Fother, Ì hav kild u bufulò." Hiz ekspreshun chânjd tù serpriz and hè askt mè wâr mi bufulò wuz. Ì pointed tù it and wè rôd òver tù wâr it lâ.

Fother helpt mè skin it, then set thu hid and thu mèt on mi hòrs. Ì jumpt utop this lôd and then Fother and Ì rôd tù wâr hè had kild u bufulò. Thâr wè stopt and prèpârd thu mèt fôr tâking hòm.

It wuz lât afternùn wen wè got bak tù kamp. Nò king ever rôd in stât hù wuz mòr proud than Ì that dâ az Ì kâm intù thu vilij siting hi up on mi lôd uv bufulò mèt. It iz not kustumârè fôr Indèun men tù brag ubout thâr eksploits, and Ì had ben tawt that braging wuz not nis. Sò Ì wuz vârè kwiut, awlthò Ì wuz bersting with prid. Awlwâz wen uriving hòm Ì wood run tù plâ, fôr Ì luvd tù bè with uther boiz, but this dâ Ì linggerd klòs tù thu tèpè sò that Ì kood hèr thu nis thingz that wer sed ubout mè. It wuz sùn awl òver thu kamp that Òtu K'tè had kild u bufulò.

Chek Yòr Rédıng

1. Wut trib dıd Òtu K'tè bèlong tù?
   A. Thu Upachè
   B. Thu Sù
   C. Thu Chàròkè
2. On hız wà tù thu bufulò hunt, Òtu K'tè felt
   A. Proud
   B. Hert
   C. Anggrè
3. Wen thu bufulòz saw thu Indéunz, thà
   A. Stopt and stàrd
   B. Spred out
   C. Kàm tùgether
4. Wen thu Indéun lèder shouted "Hò-ku-hè," thu hunterz
   A. Stopt
   B. Ròd faster
   C. Ròd mòr slòlè
5. Òtu K'tè bèkàm fritend wen hè
   A. Ròd ıntù thu herd
   B. Herd thu ferst shot
   C. Saw thu herd bràk up
6. Thu bufulò Òtu K'tè went after wuz
   A. U yung kaf
   B. U fool-gròn kou
   C. An òld bool
7. Tù kıl thıs bufulò, hè yùzd
   A. Tú àròz
   B. Fiv àròz
   C. Ten àròz
8. Wen Òtu K'tè tòld hız fother hè had kıld u bufulò, hız fother wuz
   A. Anggrè
   B. Dısupoınted
   C. Serprizd

9. On ~~thu~~ wȧ hȯm, Ȯtu K'tė
   A. Kȧrėd ~~thu~~ bufulȯ mėt
   B. Dragd ~~thu~~ bufulȯ mėt
   C. Rȯd on ~~thu~~ bufulȯ mėt
10. Wen Ȯtu K'tė got hȯm, hė
   A. Bragd ubout hız eksploits
   B. Ran tù plȧ with frendz
   C. Stȧd uround ~~thu~~ tėpė

1. B
2. A
3. C
4. B
5. A
6. A
7. B
8. C
9. C
10. C

Thu Wildernus Wawnderər

bi Dŏruthē Hiderstat

Dımenshunz ın Rēdıng, SRA

Jon Myůər drēmd uv bēing an ınventər. Thu werld uv mukanıkəl thingz fasınātəd hım. But odlē ēnuf, ıt wuz ın u kwit dıfrunt werld that hē mād hız nām.

It wuzn't that hē dıdn't prŏdůs ınvenshunz. Ēven az u boı hē bılt wērd kindz uv kloks and thermomuterz. Wun thermomuter wuz sŏ bıg that hē fasend ıt tů thu sid uv thu hous sŏ that ıt kood bē red frum for uwā ın thu hılz. Hē awlsŏ mād u klok that kood strik, tel bŏth thu our and thu dāt, and lit u lamp. Thu best port ubout that klok, thŏ, wuz that hē had fasend u dēvis tů ıt that wood tıp hız bed up at ānē dēzird our. Hē kawld ıt hız "ərlē-rizıng mushēn."

Wen Jon wuz twentē-tů hē took sum uv hız ınvenshunz tů thu stāt fār ın Madısun, Wıskonsun. Thā utrakted much utenshun and wər rıtən up ın nůzpāpərz. Pēpəl flokt tů sē them, and Jon wun fıftēn dolərz fŏr them. Hē dēsided tů yůz thu munē tů ferther hız ejyůkāshun. Sůn afterwerd hē enrŏld ın thu Yůnıversıtē uv Wıskonsun.

Hē had tů werk hız wā and sumtimz had bārlē ēnuf fŏr fůd, but hē manıjd tů stā on.

Hız klasmāts wər fasınātəd wıth hız ınvenshunz. Thā uspeshəlē likt thu desk. It wuz nin fēt hi, wıth u klok utacht and u lot uv rodz and pooləz. Jon kood set an ulorm on thu klok sŏ that ıt wood gŏ awf at u sertun our evrē mŏrnıng. Then wēlz bēgan tů mův and u mukanıkəl orm poosht u book up ontů thu desk and ŏpend ıt. Fŏr fıftēn mınuts thu book lā ŏpən thār--long ēnuf fŏr Jon tů studē hız lesun frum ıt. Thu mushēnərē then klŏzd thu book, rēmůvd ıt, and

set out unuther wun. Thu dêlitəd boiz yùzd tù fit fôr thu privlij uv woching Jon studê.

In 1863, wen hê wuz twentê-fiv, hê left thu yùniversitê. Hê went on u wawking tûer uv thu Wiskonsun and Misisipê riverz. Hê simplê rambeld, studêing berdz and plants. Hê kârêd nôtbooks in wich hê mâd skechez and rôt doun hiz obzervâshunz. Wenever hê ran out uv munê, hê found u job and ernd ênuf tù tâk him on môr travelz.

Sumtimz hê thawt he awt tù setel doun, uspeshelê wen hiz familê kawld him u ne'r-dù-wel. But then, in 1867, wil hê wuz werking in u mushên shop, hê had an aksidunt that injerd an i. Fôr wêks hê wuz thretend with blindnus. Az hê lâ in thu dorkend rûm, hê thawt uv awl thu plâsez in thu werld hê had never sên. Wen hê rêkuverd, hiz mind wuz mâd up. It didn't mater wut ânêwun thawt--hê wood bê u traveler awl hiz dâz.

That wuz thu bêgining uv hiz wondering kurêr, in thu kôrs uv wich hê vizited menê ports uv thu werld--Awstrâlyu, Indêu, Rushu, Panumaw, Kyûbu, and Ulasku--awlwâz werking hiz wâ and mâking nôts.

Wuns, in Ulasku, hê mâd frendz with u litel blak dawg ônd bi sum Indêunz hù wer serving az hiz gidz. Hê and thu dawg wer nêrlê trapt on u glâsher wun dâ, but eskâpt bi krosing u thin brij uv is. Myûer rôt u book ubout thu advencher, wich ternd out tù bê vârê popyûler. And that ternd out tù bê thu stort uv hiz pâing kurêr.

Hê bêgan tù rit maguzên ortikelz ubout hiz travelz. Hê rôt ubout awl thu thingz hê luvd best: mountenz, roks, woterfawlz, plants, berdz, flouerz, and trêz. And hê rôt ubout thu wâz in wich sum uv them wer bêing distroid. Hê rôt uv thu shêp driven tù grâz in thu mounten medôz, and hou thâ rûind thu fernz and flouerz. ("Hoeft lôkusts" hê kawld them.) Hê rôt uv fôrust fierz set dêliberutlê bi stokmun tù mâk môr paschorz, ôr bi Indêunz tù mâk môr hunting groundz.

Rédıng uv such thıngz, pépel békám kunsernd ubout thu rúın uv thu wıldernus and trid tú get lawz past that wood prézerv thu kuntréz byútė.

In 1890 Myúer réelė bégan tú sė rézults. Konggrus past u law máking hız fávorıt réjun--Yósemıtė Valė--port uv u hyúj nashunel pork. That sám yér tú uther nashunel porks wer krééted--Sıkwoıyu and Jenerel Grant. Thu Sıkwoıyu pork kuntánd menė uv thu lorjust and óldust tréz ın thu werld.

Nou that Jon Myúer had storted thu bawl roling, ıntrust grú ın prézervıng uther nacherel wunderz uv thu Yúnited Státs. Fınelė, ın 1897, Prezıdunt Gróver Klévlund sınd u law krééting therttén grát nashunel fórust rézervz.

Az fór Jon hımself, hė wuz nó longger u penélus wawnderer, but u welthė wun. Hız rítıngz had brawt ın u grát dél uv munė. Hė had awlsó sukséded ın máking pépel look on him not az u fúlısh, footlús advencherer, but az u réspekted nacherelıst. And hė had ıntródúst u nú werd ıntú thu Umerıkun konshusnus: konserváshun.

# # #

Chek Yór Rédıng

1. Wen hė wuz u boı, Jon bılt u jíunt
   A. thermomuter
   B. teluskóp
   C. ourglas
2. Wun uv hız uther ınvenshunz wuz u klok utacht tú u
   A. trap
   B. bed
   C. windó

3. At thu yůnıversıtė, hė had an ınvenshun tů help hım
   A. mák hız bed
   B. travel tů klases
   C. stůdė hız books
4. Az sůn az hė left thu yůnıversıtė, hė
   A. found u job
   B. got márėd
   C. took u trıp
5. Thu Myůer famılė thawt that Jon wuz
   A. lázė and ırrėsponsıbel
   B. klever and krėátıv
   C. lônlė and mısunderstood
6. Jon dėsıded tů spend hız lif traveling after hė had ben thretend with
   A. lámnus
   B. blindnus
   C. defnus
7. Thu subjekt uv Myůer'z ferst popyůler book wuz u
   A. nárô eskáp
   B. dezert krosıng
   C. bár hunt
8. Jon kawld thu mounten-fėdıng shėp
   A. hooft lôkust
   B. woolė wėvelz
   C. grázıng grubz
9. Myůer ız best nôn fôr ıntrôdůsıng thu idėu uv
   A. outdôr kampıng
   B. konservášhun
   C. fier fitıng
10. In 1897 Prezıdunt Klėvlund sind u law krėátıng therttėn
   A. nashunel fôrust rėzervz
   B. wild gám prėzervz
   C. Indėun rezervášhunz

1. A
2. B
3. C
4. C
5. A
6. B
7. A
8. A
9. B
10. A

Thu Imposibəl Jernė
bi Todhunter Balerd
Dimenshunz in Rėding, SRA

Thu Strawbårė Hil mining kamp had seldum ekspėrėunst ånėthing lik thu winter uv 1850. Blizerdz had bėgun erlė in Nővember, and bi thu end uv thu munth thu klåmz and kabinz uv u hundrud ór ső men wer nėrlė bårėd bėnėth thu hi drifts uv thu Sėåru Nuvadu.

Thu ferst tů bėkum werėd wuz Samsun Dőn, but nőbudė hėded hiz worningz, fôr seldum did ånėwun tåk Samsun sėrėuslė. Thu big man frum thu Kentukė hilz wuz, in fakt, thu but uv mőst uv thu kamp jőks. Thå kided him ubout hiz siz--hė wuz u hed tawler than thu rest uv them--and ubout hiz wå uv ekspekting thu werst. Awlthő ókåzhunelė thu kiding rangkeld, Samsun yůzhyůelė took it good-nåcherdlė

Az thu wėks went bi and thu paktrån that yůzhyůelė brawt supliz fåld tů upėr, houevər, thu uther minerz bėgan tů ekő Samsun'z kunsern. Thår fůd wuz awlmőst egzawsted, and ėven thu gåm that yůzhyůelė rőmd thu hilz had ben drivən uwå bi thu dėpening snő.

Then inflůenzu struk, lėving haf thu minerz helplus in thår bungks and plunjing thu kamp intů rėlė dėp trubel.

"Sumbudė'z got tů gő doun tů Sunőru tů get fůd," sed Samsun in hiz slő wå.

Thu uthərz lookt at him az if hė wər krázė. Nőbudė kood get doun thu nårő kanyun trål in u blinding blizerd, much les klim it ugen, thå prötested.

Samsun didn't orgyů, but simplė poot on sum snőshůz and stortəd out intů thu houling stôrm.

He had thərtė-fiv milz tů gő, övər u trål that wuz difukult in thu best uv wether, ső nårő in plåsez that tů berő tranz koodn't pas. Samsun had tů fėl hiz wå ulong thu snő-fild lej, inching az klős tů thu kanyun wawl az

posıbəl, lest u mıstep send hım plunjıng tôərd thu Stanıslaws Rıver u thouzund fêt bêlô.

Thu wınd bêt at hım and thu drivıng snô blinded hım, but hê kept mûvıng stedılê, and bi mıdafterrûn hê had rêcht thu kanyun botəm. Frum thâr on thu gôıng wuz ézéər, fôr thu snô and wınd had dîd doun, and uround mıdnit thu folôıng dâ hê rêcht Sunôru.

Hê nokt on thu dôr uv thu ferst kabın hê kâm tû, and u slêpê-id man nâmd Hangk Pouərz let hım ın.

"Good Lôrd!" Pouərz ekskIâmd after hêrıng thu stôrê uv Samsun's dêsent uv thu klıf. "It's u mırukəl yû dıdn't gô ôvər thu ej. Hêr, get out uv thôz wet klôz." Hê tost u blangkut uround Samsun'z bıg shôlderz, pôrd kawfê, and dıpt u plât uv bênz frum u pot on thu stôv.

Samsun askt thu sımpəl kweschun on hız mînd--wuz thâr ênuf fûd ın toun? On hêrıng that u bıg shıpmunt had kum ın thu dâ bêfôr, hê sîd ın rêlêf, fôr hê had fêrd that Sunôru, tû, mit bê shôrt uv fûd.

Bi môrnıng ıt wuz snôıng ugen--sô hord that Pouərz wôrnd Samsun not tû gô bak. But hız plê fel on def êrz, and Samsun set out tû rêtrâs hız trâl, thıs tım on hôrsbak and folôd bi tû berôz and thrê hôrsəz lôded with supliz.

Az hê strugəld thrû an afternûn uv dêkrêsıng vızıbılıtê and ınkrêsıng wınd, Samsun'z bodê bêkâm num and hız brân duld. And then, uround nitfawl, hê kâm upon uther traks.

Leokıng at them stûpudlê, hê wunderd hû els kood posıblê bê rîdıng ın thu blızərd. Hê had folôd thu traks fôr u thouzund fêt bêfôr hê stopt ubruptlê, rêəlizıng hız gastlê mıstâk. Thêz wər hız ôn traks, and hê had ben gôıng ın sərkəlz fôr--hû nû hou long? Hê had nô sens uv derekshun, nô idêu wâr thu trâl wuz, nô nôshun uv wâr hê wuz heded. Ôverkum bi shêr wêrênus, hê sat doun ın thu snô and wept.

Finelə hə kulekted himself and mad u ruf kamp, wating for dalit or u brak in thu storm--u chans tu get hiz baringz.

At dawn hə roz frum u restlus slep and ugen strung out hiz smawl karuvan. At last, az thu ski ternd liter, hə saw uhed u fumilyer brak in thu kanyun rim and took thu tral dounword toerd thu river. Then, az thu ruged path roz ugen, hə pawzd, looking up thu fritening slop and its seven milz uv bared tral.

Thu horsez rezisted thu klim, hanging bak nervuslə and grujing evrə step. Then, onlə u hundrud yordz frum thu top, dizaster struk. Thu led rop jerkt tit in hiz hand. Hə ternd, thingking that thu led hors wuz bawking ugen, but insted, tu hiz horer, hə saw that thu rer berd had slipt over thu ej and that momuntarulə thu uther wood be poold over bi thu wat on thu lin. Az thu bak hors strugeld tu hold its footing, hə fumbeld for hiz nif and manijd, barlə in tim, tu slash thu rop on wich thu berdz danggeld. Thu hors stagerd tu its fet, and Samsun grabd its holter and pated its nek until it kwiuted. Then hə ejd forwerd ugen and werkt thu thrə animelz up thu remaning lej.

Looking out thu windo uv hiz kabin, wun uv thu minerz at Strawbarə Hil skwinted at thu sno-kuverd slop, onlə haf beleving that sumthing wuz akchuelə muving thar. Finelə hə mad out u mounted man leding tu pakhorsez. Hiz shouts brawt thu minerz out uv thar kabinz tu throng ubout Samsun and unlod thu supliz frum thu werə animelz.

That nit thu kamp selubrated with u glorius ful-kors diner. But Samsun mist it and thu entertanmunt that folod, for hə wuz sound uslep. Hə kuntinyud tu slep for twentə-for ourz, and odlə enuf, no wun mad u singgel jok ubout it. In fakt, wen hə uwok hə found that hiz felo mimerz had formd u kounsul tu met fyuchor emerjunsez, and had elekted him hed uv it.

# # #

Chek Yŏr Rēding

1. Nŏ supliz had ben brawt up tŭ thu kamp at Strawbārē Hil bēkuz thu
   A. wether wuz tŭ bad
   B. men wer tŭ sik
   C. kanyun wuz tŭ stēp
2. Samsun Dŏn voluntērd tŭ get supliz probublē bēkuz hē wuz
   A. stŭpud
   B. ambishus
   C. kunsernd
3. Thu uther minerz thawt thu trip wuz
   A. unnesusārē
   B. imposibel
   C. Bŏth A and B
4. Thu trāl frum thu kamp led doun u
   A. riverbed
   B. kanyun wawl
   C. Nēther A nŏr B
5. Wen Samsun rēcht thu kanyun botem, hē found thu gŏing mŏr
   A. difikult
   B. rapid
   C. kunfyŭzing
6. Hangk Pouerz' rēakshun tŭ Samsun'z stŏrē uv hiz trip wuz wun uv
   A. ustonishmunt
   B. injoimunt
   C. unoiuns
7. Hangk Pouerz erjd Samsun not tŭ
   A. stort bak tŭ thu kamp
   B. trī tŭ yŭz hŏrsez
   C. yŭz up Sunŏru'z fŭd
8. Thu traks Samsun kām ukros on hiz rētern trip had ben mād
   A. on hiz trip tŭ Sunŏru
   B. bī unuther wawnderer
   C. Nēther A nor B

9. Samsun sávd thu hórsez bi
   A. kutıng thu berôz lûs
   B. rapıng thu rôp uround hız rıst
   C. grabıng thár holterz
10. Thu mimerz shôd Samsun thár uprêshêáshun bi
   A. gıvıng hım u dınər
   B. êlektıng hım u lêdər
   C. prêzentıng hım with u gıft

1. A
2. C
3. B
4. B
5. B
6. A
7. A
8. C
9. A
10. B

Thu Morshunz or Kuming
bi Ben Grós
Dimenshunz in Rêding, SRA

(Probublê nó prógram in thu histerê uv rádéó met with u wildər rêsepshun than thu wun brawdkast bi Órsun Welz on Októbər 20, 1938. Ben Grós, then u rêpórtər fór thu Nú Yórk Dálê Núz, givz this iwitnus rêpórt uv thu fantastik évent.)

Ì wuz having u plezunt dinər with u fyú frendz that évning. Az wê át, wê tərnd on thu rádéó tú hêr Orsun Welz'z regyúlər Sundâ-évning prógram. Thu shó bégan rútênlê énuf, with thu unounsər sáing kwit distingktlê that KBS wuz prê-zenting u drawmu bást on H. G. Welz'z stórê Thu Wór uv thu Werldz.

Thu prógram ópənd with u "núz flash" infórming us that u trêmendus eksplózhun had tâkən plâs on thu planut Morz. Then kám u flood uv sensáshunəl "boolutənz" kunsərning u mêtêyər that had krasht in Nú Jərzê, kiling mór than u thou-zund pərsunz. An "on-thu-spot" brawdkast folód, rêpórting that thu mêtêyər wuz nó mêtêyər at awl, but u silvər silindər—u fantastik ship frum outər spâs. Frum it wər strêming hərendus krêchərz, thu lik uv wich had never ben sên bêfór. Thá wər men frum Morz, ormd with deth-rá gunz, ugenst wich thár wuz nó défens. Thu thouzundz hú had rusht tú thu fêld wár thu kraft had landəd wər bərnd tú sinderz, and thu Mor-shunz wər prósêding tú invád thu erth and eksterminât its inhabitunts!

Wut kám óvər thu ár wuz tárifiing, and thu stukotó "núz rêpórts" and prónounsmunts bi "ófishəlz" that folód

mâd ɪt sẽm ėven môr sô: thu Nashunəl Gord had ben kawld out...thu Sekrutârė uv Wôr wuz ɪshyůɪng ôrdərz tů thu Ormė... u stât uv nashunəl ėmerjunsė had ben prôklâmd...the Stât Dėportmunt and ėven thu Wit Hous wər ərjɪng thu pėpəl tů kėp kawm. Bi nou thu Morshunz, wɪth flâm and terər, wər morchɪng on Nů Yôrk!

"Yů nô," Ì rėmorkt, urizɪng rėluktuntlė frum mi unfɪnɪsht stâk, "Ì thɪngk Ì'd betər gô bak tů thu awfɪs. Sum lɪsənərz mit rėlė bėlėv thɪs."

"Hou kood thâ?" askt wun uv thu gests. "Thu unounsər sed that ɪt wuz just fɪkshun."

"Yes, but thôz hů tůnd ɪn lât dɪdn't hėr thu unounsmunt," unuthər sed.

Mi kwiut Sundâ ėvnɪng wuz just ubout tů end. Bi thu tim I rėcht mi awfɪs thu swɪchbôrd wuz blâzɪng; thu linz wər jamd and fônz wər rɪngɪng awl ôvər thu plâs. Hurast usɪstunts wər trɪɪng tů kunvɪns thu kawlərz that wut thâ wər hėrɪng on thu râdėô wuz ônlė u plâ, but wɪth lɪtəl sukses. Futogrufərz wɪth fool ėkwɪpmunt wər skorėɪng tôərd thu eluvâtərz. Rėpôrtərz wər desperutlė trɪɪng tů rėch KBS, but wər unâbəl tů peot kawlz thrů. Ì dėsided that sɪns I koodn't rėch KBS bi fôn, Ì wood tâk u taksė tů thu stůdėô.

Ì askt thu drivər tů tůn thu kab râdėô tů thu prôgram, and az hė dɪd, thu kawm voɪs uv thu unounsər rėpėtəd that thu prôgram wuz u prėzentâshun uv u stôrė bi H. G. Welz. U fyů sekundz lâtər thu Morshunz wər morchɪng ugen, rushɪng fierė deth on Nů Yôrk Sɪtė wil refyůjėz ubandund thâr hômz ɪn wild flit. Ferthermôr, sum uv thu ɪnvâdərz, hů had folôd ɪn uthər shɪps frum outər spâs, had dėtůrd tů thu Mɪdwest and South.

Hėrɪng thɪs, thu kabė utərd u stortəld ekskluməshun.

"It's just fɪkshun," Ì usherd hɪm. "Dɪdn't yů hėr thu unounsər?"

"Nô, I dɪdn't hėr ânė unounsər," thu man rėplid. (Lâtər ɪt wuz ɪstablɪsht that menė uv thôz hů had herd thu ɪntiər brawdkast had kumplėtlė mɪst thu sevrul unounsmunts.)

"Or yů sher ıt's just u stôrė thá'er pooting on?" thu kabė persısted.

"Yů dôn't sė ånė panık-strıken pėpel runing ubout thu strėts, dů yů?" İ askt.

But just at that mômunt, az wė past u můvė thėuter, u haf-duzen wımun and chıldrun skerėd frum ıt. Men rusht outdôrz and gåzd at thu ski, and kroudz gatherd uround u pulėsmun hů stood ın thu mıdel uv thu strėt.

"Thår sher ız <u>sumthing</u> gôing on," mi driver sed.

And ındėd thår wuz, awlthô wun woodn't hav nôn ıt bi thu lak uv termoıl ın frunt uv KBS. Thår wuz nô môr than thu yůzhyůel number uv pudestrėunz gôing bi. Shôing mi pas, İ had dıfıkultė gåning akses tů thu sėt uv thu hıstårėu that wuz at that momunt swėping thu kuntrė.

Thu akterz had kawmlė fınısht thu brawdkast, ignerunt uv thu havok thå wer krėåting. Wen unoıd pulėsmun and werėd stůdėô egzekyůtıvz berst thrů thu dôrz, Welz wuz ustounded tů hėr that lısenerz had tåken hız fantusė lıterulė. "But hou kood thå?" hė sed. "Thå wer tôld sevrel timz that ıt wuzn't rėl."

Thu ståshun bėgan måking rėpėted unounsmunts that Umerıkunz posıtıvlė wer ın nô perul frum spåsmen. Neverthules, wen İ rėternd tů thu <u>Nůz</u> awfıs, thu fônz wer stıl ringing. Stôrėz and ınkwırėz kuntınyůd tů pôr ın, and ıt bėkåm upårunt that thu prôgram wuz having nashunel and ėven internashunel rėperkushunz. In Nů Yôrk, Kunetėkut, and ubuv awl Nů Jerzė--wår thu "Morshunz" had landed--thouzundz uv fêrfool pėpel wer tåking tů th strėts and hiwåz. Men and wımun wer prāing ın thu strėts, kunverjing on toun skwårz, and bėsėjing pulės ståshunz sėking refyůj. Inkredıblė, hundrudz uv utherz--thu fůlhordė and kyoorėosıtė-kunsůmd--wer driving <u>tôerd</u> thu spot wår thu mėtėyer supôzudlė had landed.

Az thu wier-servıs rėpôrts pôrd ın, ıt bėkåm klėr that thu panık's koılz had klucht sıtėz, tounz, and hamluts frum

kŏst tů kŏst and doun tů thu Meksıken bŏrder. Thu pėpel uv thu Yůnited Státs had sukumd tů an unpresudented mas hıstárėu.

Imėdėutlė after thu kuntrė had kawmd ıts kulektıv nervz, thár wer dėmandz fŏr guvernmunt sensŏrshıp uv rádėŏ, but Wawshıngtun wizlė dėsided ugenst such u mezher. Bėsidz, ıt wuz unnesusárė. Az u rėzult uv thu brawdkast, KBS and uther netwerks had awlredė poot out u dėkrė. Thárafter nŏ drumatık werks wood bė brawdkast that ımploıd such rėelıstık dėvisez az nůz boolutınz or ımpersunáshunz uv publık ŏfıshelz--at lėst, not ıf thėz wer liklė tů krėát panık.

Dering thu munths that folŏd, menė eksperts on mas sikolŏjė had u glŏrėus tim utempting tů eksplán wi thu ınsıdunt ŏkerd. Spŏksmun fŏr Hıtler and Můsulénė hálď thu eksıbıshun uv hıstárėu az u sin uv the dekuduns and kouerdıs uv Umerıkun dımokrusė. Môst Umerıkun komentátərz utrıbyůted ıt tů thu klimut uv thu timz, wıch wer trůlė hektık. That awtum uv 1938 had witnust wun ınternashunel krisıs after unuther, and thu werld dıd ındėd sėm tů bė on thu verj uv u mitė kutastrufė. Wutever thu eksplunáshun, thár wuz wun ınteresting kontrast threė yėrz láter: wen Perl Horber wuz bawmd, thu eksitmunt dıd not even uproch thu hıstárėu ındůst bi Welz and hız grát "Morshun ınvázhun."

# # #

Chek Yŏr Rėding

1. Thu awther uv this ortıkel wuz u
   A. nůzpáper rėpŏrter
   B. pulės awfısər
   C. telufŏn operáter
2. Hė tůnd ın tů thu Morshun prŏgram wil hė wuz
   A. werking lát at thu awfıs
   B. having dıner with hız frendz
   C. driving hŏm ın hız kor

3. Thu "mėtėyer" ferst rėpôrted ın Nů Jerzė wuz låter sed tů bė
   A. an utomık bawm
   B. u spåsshıp
   C. Nėther A nôr B
4. Thu brawdkast sėmd vårė rėelıstık, mânlė bėkuz ıt yůzd
   A. fyů kumershelz and unounsmunts
   B. akchůel rėkôrdıngz uv batelz
   C. awthentık-soundıng nůz boolutınz
5. On hız urível, thu awther found thu nůzpåper awfıs
   A. absulůtlė klôzd
   B. serprizınglė ôrderlė
   C. frantıkelė bızė
6. Wen thu unounser ıdentıfid thu prôgram az u stôrė, thu kab drîver wuz
   A. stortəld
   B. skeptıkəl
   C. unhėdıng
7. Wen Ôrsun Welz lernd uv thu brawdkast's ufekt, hė wuz
   A. ustonısht
   B. trîumfunt
   C. fyerėus
8. U růlıng fôrbıdıng sımuler brawdkasts wuz mâd bi thu
   A. federəl guvernmunt
   B. rådėô stáshunz
   C. Nėther A nôr B
9. Hıtler and Můsulėnė utrıbyůted thu panık tů Umerıkun
   A. wėknus
   B. ıntelıjuns
   C. jenerosıtė
10. Thu awther sed that Umerıkunz rėakted with kumpårutıv kawmnus tů thu
    A. sıngkıng uv thu Bızmork
    B. bawmıng uv Perl Horber
    C. landıng at Nôrmundė

1. A 6. C
2. B 7. A
3. B 8. B
4. C 9. A
5. C 10. B

frum Mukbeth
Wılyum Shåkspėr

Akt Tů. Sėn 2.

Mukbeth. Mėthawt Ì hərd u voıs krı, "Slėp nō mōr!
Mukbeth duz mərdər slėp," thu ınusunt slėp,
Slėp that nıts up thu ravəld slėv uv kår,
Thu deth uv ėch dåz lif, sōr låbər'z bath,
Bawm uv hərt mınz, gråt nåchər'z sekund kōrs,
Chėf nərıshər ın lif's fėst--

Ingglund ın Lıtərucher
Glenvyů, Il.: Skot, Fōrzmun & Ku., 1973.
p. 168

frum Eså on Krıtusızəm
Alıgzandər Pōp

'Tız wıth our jujmunts az our wochəz; nōn (tůdå sed nun)
Gō just ulik, yet ėch bėlėvz hız ōn.

Let such tėch uthərz hů themselvz eksel,
And sensher frėlė hů hav rıtən wel.

Myůzık rėzembəlz pōutrė; ın ėch
Or nåmlus gråsəz wıch nō methudz tėch.

Ingglund ın Lıtərucher, p. 297

Dů Not Gǒ Jentel ıntů That Good Nit

Dılen Tomus

Dů not gǒ jentel ıntů that good nit,
Ǒld áj shood bern and rav at klǒz uv dá;
Ráj, ráj ugenst thu dıng uv thu lit.

Thǒ wiz men at thár end nǒ dork ız rit,
Bękuz thár werdz had fǒrkt nǒ litnıng thá
Dů not gǒ jentel ıntů that good nit.

Good men, thu last wav bi, krıng hou brit
Thár frál dędz mit hav danst ın u grėn bá,
Ráj, ráj ugenst thu dıng uv thu lit.

Wild men hů kawt and sang thu sun ın flit,
And lern, tů lát, thá grėvd ıt on ıts wá,
Dů not gǒ jentel ıntů that good nit.

Grav men, nėr deth, hů sė wıth blindıng sit
Blind ız kood bláz lik mėtėyerz and bė gá,
Ráj, ráj ugenst thu dıng uv thu lit.

And yů, mi fother, thár on thu sad hit,
Kers, bles, mė nou wıth yǒr fėrs tėrz, I prá.
Dů not gǒ jentel ıntů that good nit.
Ráj, ráj ugenst thu dıng uv thu lit.

frum Ingglund ın Lıterucher, p. 654

Uv Studèz

Fransus Bâken

Studèz serv fôr dêlit, fôr ôrnumunt, and fôr ubılutė. Thâr chèf yûs fôr dêlit ız ın privutnus and rètierıng; fôr ôrnumunt, ız ın dıskôrs; and fôr ubılutė, ız ın thu jujmunt and dıspôzıshun uv bıznus; for ekspert men kan eksıkyût, and perhaps juj uv pertıkyûlerz, wun bi wun; but thu jenerel kounselz, and thu plots and morsheling uv ufârz kum best frum thôz that or lerned. Tû spend tû much tim ın studèz ız sloth; tû yûz them tû much fôr ôrnumunt ız afektâshun; tû mâk jujmunt hôlė bi thâr rûlz ız thu hyûmer uv u skoler. Thâ perfekt nâcher, and or perfekted bi ekspêrêuns; fôr nacherel ubılutèz or lik nacherel plants, that nèd prûnıng bi studė; and studèz themselvz dû gıv fôrth derekshunz tû much at lorj, eksept thâ bė bounded ın bi ekspêrêuns. Kraftė men kuntem studèz, sımpel men admier them, and wiz men yûz them; fôr thâ têch not thâr ôn yûs; but that ız u wızdum without them and ubuv them, wun bi obzervâshun.

Rèd not tû kontrudıkt and kunfyût, nôr tû bėlêv and tâk fôr granted, nôr tû find tawk and dıskôrs, but tû wâ and kunsıder. Sum books or tû bė tâsted, utherz tû bė swawlôd, and sum fyû tû bė chûd and dijested; that ız, sum books or tû bė red ônlė ın ports; utherz tû bė red but not <u>therulė</u>, and sum fyû tû bė red hôlė, and with dılujuns and utenshun. Sum books awlsô mâ bė red bi depyutė, and ekstrakts mâd uv them bi utherz; but that wood bė ônlė ın thu les ımpôrtunt orgyûmunts and thu mêner sôrt uv books; els dıstıld books or, lik komen dıstıld woterz, <u>tâstlus</u> thıngz.

Rêdıng mâkuth u fool man; konferuns u redė man; and rıtıng an egzakt man. And, thârfôr, ıf u man rit lıtel, hė had nèd hav u grât memerė; ıf hė kunfer lıtel, hė had nèd hav u prezunt wıt; and ıf hė rêd lıtel, hė had nèd hav much kunıng,

tů sẽm tů nỏ wut hẽ duth not. Histərẽz mák men wiz; pỏuts, witẽ; thu mathmatiks, sutəl; nacherəl felosifẽ, dẽp; mỏrəl, gráv; lojik and retərik, ábəl tů kuntend: Studẽz dẽvelup intů habits! Ná, thár iz nỏ stand ỏr impedimunt in thu wit but má bẽ rawt out bi fit studẽz; lik az dizẽzəz uv thu bodẽ má hav uprỏprẽit eksərsizəz. Bỏling iz good fỏr kidnẽ stỏnz, shúting fỏr thu lungz and brest, jentəl wawking fỏr thu stumuk, riding fỏr thu hed, and thu lik. Sỏ if u man'z wit bẽ wawndəring, let him studẽ mathmatiks; fỏr in demunstráshunz, if hiz wit bẽ kawld uwá never sỏ litəl, hẽ must bẽgin ugen. If hiz wit bẽ not apt tů distinggwish ỏr find difərunsəz, let him studẽ thu skolərz, fỏr thá or thu hársplitərz! If hẽ bẽ not apt tů bẽt ỏvər matərz, and tů kawl up wun thing tů prův and ilustrát unuther, let him studẽ thu loier'z kásəz. Sỏ evrẽ dẽfekt uv thu mind má hav u speshəl pərskripshun.

frum Ingglund in Literucher, p. 220
with sertun "in tekst" (___) chånjəz

Thu Dôlch Bâsık Wərd Lıst

Prė-Prımər		Prımər		Fərst Grâd	
u	tů - tů	awl	shė	after	tâk
and	up	am	sô	ugen	thangk
uwâ	wė	or	sůn	an	them
bıg	wâr	at	that	ânė	then
blů	yelô	ât	thâr	az	thıngk
kan	yů	bė	thâ	ask	wawk
kum		blak	thıs	bi	wər
doun		broun	tů	kood	wen
find		but	undər	evrė	
fôr		kâm	wawnt	fli	
funė		dıd	wuz	frum	
gô		dů	wel	gıv	
help		ėt	went	gôıng	
hėr		fôr	wut	had	
İ		gıt	wit	haz	
ın		good	hů	hər	
ız		hav	wıl	hım	
ıt		hė	with	hız	
jump		ıntů	yes	hou	
lıtəl		lik		just	
look		must		nô	
mâk		nů		let	
mė		nô		lıv	(liv)
mi		nou		mâ	
not		on		uv	
wun		our		ôld	
plâ		out		wuns	
red		plėz		ôpən	
run		prıtė		ôvər	
sed		ran		poot	
sė		rid		round	
thu		saw		sum	
thrė		sâ		stop	

Thu Dólch Básik Werd List p. 2

Sekund Grád		Therd Grád	
awlwáz	théz	ubout	shó
uround	thóz	beter	sıks
békuz	upon	bring	shood
ben	us	kárė	stort
béfór	yúz (yús)	klén	ten
best	várė	kut	túdá
bóth	wawsh	dun	túgether
bi	wıch	drú	trí
kawl	wi	dringk	wórm
kóld	wısh	át	
duz	wərk	fawl	
dón't	wood	for	
fast	rit	fool	
fərst	yór	got	
fiv		gró	
found		hóld	
gav		hot	
góz		hərt	
grén		ıf	
ıts		kép	
mád		kind	
menė		laf	
awf		lit	
ór		lawng	
pool		much	
réd (red)		miself	
rit		never	
sing		ónlė	
sıt		ón	
slép		pık	
tel		seven	
thár		shal	

APPENDIX E

A TEST OF READING COMPREHENSION IN TRADITIONAL ORTHOGRAPHY

Directions: Read the sample paragraph below. It has numbered blanks in it. The first blank is number C1. Look below the paragraph at the line of words with C1 in front of it. Find the word in line C1 that makes the best sense in blank C1. The word hurricane from line C1 makes the best sense in blank C1. The word hurricane is the answer to number C1. Draw a line under the word hurricane.

Now look at the words in line C2. Find the word in line C2 that makes the best sense in blank C2, and draw a line under it.

The Weather Bureau gives each hurricane a girl's name. Each year the first _____C1_____ is given a name that begins with A, such as _____C2_____.

C1. month hurricane name Bureau start

C2. Mary Betsy Linda Susan Alice

The word Alice makes the best sense in blank C2. You should have drawn a line under the word Alice.

When you are given the signal to begin, draw a line under the best word for each of the blanks on the following pages. There is no penalty for guessing; no points are subtracted for wrong answers. Even if you are not sure of an answer, make the best guess you can.

FORM 1

Masks served three main functions in the ancient Greek theater. Since only three male actors with speaking parts were permitted on the stage, different _____1_____ allowed these actors to play two or three parts at one time. The familiar, larger-than-life-size masks also helped the audiences in the large, open theatres to _____2_____ the characters more easily. Finally, some masks were designed to aid in projecting the actors' voices to all corners of the theater.

1. players scripts masks costumes stages

2. recognize change represent introduce applaud

Life relies on light and infrared radiation. The earth would be barren and frozen without _____3_____ energy. By means of photosynthesis which requires light, green plants make food, and infrared radiation _____4_____ the heat necessary to sustain life.

3. solar having static giving potential

4. curtails provides extracts changes precludes

All human communities employ some kind of language. Language changes through the _____5_____ of new words and the dropping of old ones. These changes in language often _____6_____ changes in conditions within the community.

5. deleting return spelling lengthening adding

6. end prevent reflect plan forego

Though a few moments earlier I had felt that I could walk no further, the sight of the _____7_____ landmark, the solitary tree, tonight _____8_____ against the wintry grey sky, caused me to quicken my pace.

7. unknown unusual awesome familiar sparse

8. pitted blossoming grouped silhouetted invisible

Helium is among the lightest of the elements. Helium is often used instead of hydrogen in balloons because, like other noble gases, it does not readily react with other substances. With _____9_____, on the other hand, there is always the danger of explosions because of its high _____10_____ of reactivity.

9. helium hydrogen atoms oxygen atmosphere

10. content method combination stability degree

He concluded by saying, "This, then, is one of the fundamental _____11_____ of our science: the making of predictions about a person's life, based upon the position of the stars at his birth. If _____12_____ is to survive, we must convince others of the validity of our position."

11. surveys deterrents lacks causes purposes

12. genetics astrology physics nature psychology

The architect who has studied acoustics knows how to provide good _____13_____ for listening to music and speech. Not only must an auditorium be shaped for good acoustics, but it must also be furnished with materials selected to control reverberation. When submitting plans for an auditorium, the architect includes acoustic materials in his _____14_____.

13. soundings music times conditions enjoyment

14. specifications walls equipment auditorium materials

The tradition of the caste system _____15_____ India's transition to a modern democratic state. By fixing an individual's place in society at birth, the caste system prevented many talented people from _____16_____ positions where they could use their abilities for the benefit of the nation.

15. helped hastened hampered started ended

16. desirable successful attaining opening using

The British Broadcasting Corporation has the responsibility for providing radio programs for all of Britain. A _____17_____ populated district in the North of Scotland is entitled to its programs as much as an industrial area. The B.B.C. cannot design its radio coverage as a _____18_____ station might, concentrating on highly populated regions and ignoring the rest.

17. sparsely heavily foreign Scottish British

18. popular public news legitimate commercial

The development and preservation of _____19_____ space in urban areas is a growing concern. The problem arises because the growth of _____20_____ ordinarily decreases the available area at the same time that it _____21_____ the need for parks and playgrounds.

19. renewal open city classroom crowded

20. pollution noise freedom population space

21. increases plans decreases overlooks proves

In reference to a _____22_____ acquaintance of ours, a particularly proud and haughty woman, a friend of mine once said, "I cannot recall her name, but she's the only person I know who can _____23_____ while sitting down!" Immediately I knew _____24_____ whom he spoke.

22. close shy mutual dear meek

23. walk sulk cry strut sing

24. to for of with her

Since radio waves travel at the known and constant speed of about 186,000 miles a second, by _____25_____ the time taken for waves to return to the radar transmitter after reflection from the aircraft it is possible to estimate the distance of the _____26_____ from the transmitter.

25. increasing changing reducing measuring spacing

26. craft wave radio reflection echo

Existentialists protest the view of man as a passive being whose behavior is determined by natural or historical forces. They emphasize the importance of the will in human nature and stress the necessity of _____27_____. Urgent decisions must be made and man must make them, even in the face of _____28_____. Though he can never know the outcome, men must be responsible for his own commitments.

27. life choice conformity peace dependence

28. reason destiny uncertainty defeat necessity

Oxygen can be prepared in the laboratory by _____29_____ potassium chlorate. In this process, the potassium chlorate is heated in the _____30_____ of manganese dioxide and separates into potassium chloride and oxygen. The catalytic agent, manganese dioxide, does not _____31_____ any change.

29. producing combining cooling freezing decomposing

30. changing reduction explosion production presence

31. cause undergo prevent help end

Occasionally clouds that are sufficiently deep and that contain sufficient water content to produce precipitation fail to do so, presumably because of the lack of a few large water droplets or of temperatures low enough to produce ice at the cloud tops. In such cases, it is conceivable that the _____32_____ of large droplets into the base of the clouds or of artificial freezing bodies into the tops of clouds might cause precipitation or at least _____33_____ its occurrence. While it appears that cloud seeding may cause fractional increases in precipitation in some areas, there is no evidence that precipitation as a whole can be _____34_____ in this way.

32. occurrence elimination cluster injection path

33. impede assume hasten negate preserve

34. measured preserved prevented observed increased

To determine a condition which is necessary for the occurrence of a given event, one must examine instances in which the event in question is _____35_____ and also instances in which it is lacking. A feature which _____36_____ whenever the event takes place but which is never present in the _____37_____ of the desired event may be called a necessary condition.

35. present sufficient frequent distinct general

36. disappears occurs wanes improves fails

37. repetition absence body presence wake

Rousseau believed that man was born with certain potentialities which he attempted to realize. Conflict with other men arose when these ambitions were _____38_____. This was most likely to occur in large, economically complex societies marked by unequal distribution of wealth and control by an active _____39_____. For a man to be on good terms with himself and his neighbors, he must live in a society of equals where he depends not on the caprice of a strong and wealthy minority but on _____40_____ applying to all members of the community establishing them.

38. attained actualized directed realized thwarted

39. minority electorate past poverty election

40. impulses sovereigns ambitions laws nations

Some of Darwin's conclusions were so _____41_____ to accepted beliefs that they were condemned as _____42_____, contrary to common sense. But scientific men, whether they accepted his theories or not, employed his hypotheses as _____43_____ ideas for making new observations and experiments among the things of raw experience.

41. similar unwelcome relevant odd contrary

42. imitations absurd acceptable often completely

43. directive correct foolish useless routine

John Locke, an empiricist, did not believe that the human mind contained innate ideas and principles. Rather, he believed that the mind was originally _____44_____ and that all knowledge was gained from sensation and reflection, the two sources of experience. Thus any concept or idea must be accounted for by tracing it back to the _____45_____ from which it might have originated. Therefore, man could _____46_____ nonexistent objects only if, through his own experience, he had previously acquired the concepts of the less complex elements involved.

44. programmed blank molded complex complete

45. concept principle belief experience thought

46. recognize identify prove classify imagine

Primitive magic seems to be based on two principles of thought: first, that an effect resembles its cause; and, second, that things which have once been in contact with each other continue to act on each other even after physical contact has been _____47_____. The magician thus believe that he can create a desired effect by _____48_____ it; and that actions taken against a material object will _____49_____ the person with whom the object was once in contact.

47. initiated broached severed restored achieved

48. imitating identifying imagining distorting making

49. strengthen show affect protect embitter

The objects of science, like the direct objects of the arts, are an order of relations which serve as tools to _____50_____ immediate havings and beings. Goods, objects with _____51_____ of fulfillment are the natural fruition of the discovery and employment of means when the connection of ends with a sequential order is _____52_____.

50. effect prevent reduce export replace

51. enjoyment thoughts uses ends qualities

52. weakened required judged determined lost

If you finish before the time is up, you may go back and check your work. This is the end of the test.

A TEST OF READING COMPREHENSION IN TRADITIONAL ORTHOGRAPHY

Directions: Read the sample paragraph below. It has numbered blanks in it. The first blank is number C1. Look below the paragraph at the line of words with C1 in front of it. Find the word in line C1 that makes the best sense in blank C1. The word hurricane from line C1 makes the best sense in blank C1. The word hurricane is the answer to number C1. Draw a line under the word hurricane.

Now look at the words in line C2. Find the word in line C2 that makes the best sense in blank C2, and draw a line under it.

The Weather Bureau gives each hurricane a girl's name. Each year the first _____C1_____ is given a name that begins with A, such as _____C2_____.

C1. month hurricane name Bureau start

C2. Mary Betsy Linda Susan Alice

The word Alice makes the best sense in blank C2. You should have drawn a line under the word Alice.

When you are given the signal to begin, draw a line under the best word for each of the blanks on the following pages. There is no penalty for guessing; no points are subtracted for wrong answers. Even if you are not sure of an answer, make the best guess you can.

A young scientist does not need to reproduce all the experiments that have been done in his chosen field. He builds on the work of the scientists who _____1_____ him and keeps informed on the _____2_____ findings of fellow scientists.

1. preceded criticized permit employ believe

2. secret difficult forgotten current future

The storage of wheat in an elevator preserves its quality, so that it may be sold long after it has been grown, with a _____3_____ of deterioration. Such storage facilities enable the farmer to save the grain for a time when it may be more _____4_____.

3. probability problem minimum degree totality

4. marketable available commodious edible accessible

The Magna Carta is one of the most famous documents in the history of government. Among other provisions, it specifies the rights of vassals, _____5_____ the king from imposing taxes without the consent of the great council, and forbids _____6_____ workingmen of their goods or implements for petty offenses.

5. protects saves requires asks restrains

6. punishing keeping depriving paying telling

As the light grows weaker, we must expose the film to more of the _____7_____ by opening the lens of the camera wider or by keeping the shutter open longer. Pictures can be taken in moonlight as well as in sunlight, but since moonlight is so much weaker, the exposure must be made considerably _____8_____.

7. camera meter picture light action

8. shorter sharper brighter clearer longer

One who knows that the Latin word "a-" means "without" and that the Latin "graphia" refers to writing, can readily _____9_____ the English word "agraphia" as the _____10_____ to write.

9. write define pronounce mistake annotate

10. facility capacity tendency propinquity inability

Bacteria, microscopic organisms found in all organic matter, living and dead, reproduce very rapidly. Lacking chlorophyl, the green coloring matter needed to _____11_____ their own food, many are parasitic. Certain bacteria are _____12_____ to life, aiding in digestion; converting dead organic matter into food for plants; assisting in fermentation.

11. consume color manufacture manifest facilitate

12. harmful indispensable adjusted beginning opposed

In the pollination of flowering plants, the pollen grains travel from the anther, the male reproductive organ at the top of the stamen, to the stigma, the female organ which _____13_____ the pollen. From the _____14_____, the pollen grains travel downward, through tubes, towards the ovary, where fertilization occurs.

13. produces receives fertilizes plants destroys

14. anther stamen ovary stigma tubes

In true alphabetic writing, ideas are expressed indirectly through letters and words of the language being used. Before alphabetic writing was developed, however, people used pictures to _____15_____ ideas. Pictures of people, animals, and objects were used in certain formal ways to tell about such events as hunting expeditions and war parties. Because the pictures were used in _____16_____ ways, anyone familiar with the scheme would know the meaning of a message.

15. represent replace determine eliminate remember

16. different individual prescribed strange artistic

Advertisers often pay large sums to sponsor television programs. The highest prices are paid for programs that attract many viewers. While the price for these _____17_____ programs is high, the sponsor will take into account average cost per _____18_____ reached as well as the total cost.

17. average musical radio adventure popular

18. minute person centage product message

A noted architect once remarked that he could not understand why the majority of designers continued to design, builders build, and buyers _____19_____ a new house that was in Cape Cod, colonial, or any other _____20_____ style. His feeling was that new construction should _____21_____ new materials, new techniques, and above all, new architectural designs.

19. want live in seek buy build

20. traditional original effective unfamiliar modern

21. copy ignore evoke prepare use

When B is present, A is always present too, and when A is present, C is never present. D and E are independent of A and C, but whenever D occurs, E occurs as well. Therefore, the presence of B always implies the absence of _____22_____; the presence of C never implies the _____23_____ of A; and the presence of D always implies the presence of _____24_____.

22. A B C D E

23. independence occurrence absence causation reverse

24. A B C D E

Some states attempt to insure a high quality of education by administering state-wide examinations at the end of a prescribed course of study. It is possible, however, for these examinations to have a _____25_____ effect on instruction, since teachers may orient the instruction _____26_____ toward the state examination rather than toward broader knowledge.

25. beneficial compensatory similar necessary detrimental

26. briefly conclusively differently also specifically

Tamerlane was a ruthless conqueror who led his armies on numerous campaigns against many Asian kingdoms. He built a huge empire by long and difficult fighting, but this empire was _____27_____, for it did not _____28_____ the dissensions among his heirs.

27. permanent transitory proud small unjust

28. respect discover survive believe encourage

England has no written constitution. Its constitution is whatever Parliament decides it is. Therefore, the judges of England do not rule on questions of constitutionality when enforcing the _____29_____ laws. In countries with a written constitution creating a government with _____30_____ powers, however, the courts may provide a means of determining whether laws are in accord with the basic principles set forth by the _____31_____.

29. court constitutional divine Parliamentary legal

30. public limited absolute harsh voting

31. Congress judge constitution Senate Parliament

The tarantella is a folk dance that originated in Italy. The similarity between the _____32_____ of this dance and that of the tarantula, a large spider, is not a coincidence. Tarantulas take their name from the Italian city of Taranto, where they occur. It was once believed that a tarantula's bite would cause a disease called tarentism. The main _____33_____ of tarentism was supposedly an uncontrollable urge to dance. The tarantella also takes its name from _____34_____ and was sometimes danced as a cure for tarentism.

32. sounds rhythm name origin movements

33. symptom cause treatment belief danger

34. spiders Taranto disease dances medicine

Court cases arising from a private injury are called torts and are taken to civil courts. A public injury is a criminal case and goes to the criminal court. The action in a civil suit is started against the wrongdoer by the individual injured. The criminal suit is begun by a prosecutor. If a man burns down your house, you could take action against him in a _____35_____ case because he has wronged you. But the _____36_____ may prosecute him in a _____37_____ case because of his willful act endangering the public.

35. civil public criminal trial court

36. suit jury prosecutor fireman judge

37. criminal civil trial private tort

The impairment of the ability to use or understand language is known as aphasia. Aphasia is not due to a defect in the organs of speech or hearing, a defect in intelligence, or an emotional disturbance, but, rather, it is the _____38_____ of an injury or disturbance in the brain. There are many varieties of aphasia; some aphasics may be able to repeat words someone else has said although they cannot produce them _____39_____. Occasionally, automatic sequences such as counting can occur while more _____40_____ speech is impossible.

38. cause foundation genesis consequence hindrance

39. orally quickly imitatively at will innately

40. concrete stereotyped monotonous creative prosaic

According to John Stuart Mill, interference by collective authority into private affairs is _____41_____ only when the safety of others is threatened. This applies not only to action, but to thought and belief as well; for example, no government has the right to _____42_____ freedom of opinion. Mill contends that restraining freedom of expression may smother the truth. False convictions also serve the cause of truth by exposing and refuting error. Finally, Mill believes that freedom of thought and belief is essential because opinions are not completely accurate or inaccurate, rather they _____43_____ elements of both truth and falsity.

41. unwarranted applicable denied coerced justified

42. suppress legislate advocate compel extend

43. radiate choose refute embody dispel

Many people, though they know that the _____44_____ of a tail of any given toss of a coin is one half, will, when told that a coin has fallen heads-up five times in succession, state that the probability of a tail on the sixth toss is _____45_____ one half. They assume that the behavior of the coin on the sixth toss is in some way determined by the coin's past behavior. This assumption in turn implies that the coin possesses a mechanism similar to a _____46_____ which can link its past behavior to its present behavior.

44. fraction probability prediction outcome function

45. less than equal to greater than always never

46. prophesy memory motor balance machine

Although today superstitious beliefs may be considered irrational and may be _____47_____ by the more enlightened members of society, at one time these "superstitions" were considered reasonable and were perfectly consistent with the beliefs of the time. For example, since a shadow or reflected image was believed to be part of the soul, it was _____48_____ to conclude that by damaging the image in some way, the soul, or life itself, would also be damaged. Thus, superstitions often represent sound logic _____49_____ by a false premise.

47. rejected enlightened adopted respected propagated

48. strange contradictory analogous natural necessary

49. improved minimized invalidated exaggerated given

He sees to it that ventures of this theoretical sort start from and _____50_____ in directly experienced subject-matter. Theory may intervene in a long course of reasoning, many portions of which are _____51_____ from what is directly experienced. And this experienced material is the same for the _____52_____ man and the man in the street.

50. return commence terminate produce explore

51. realistic obscure observed lost remote

52. scientific common needy same working

If you have time, you may go back and check your work.

This is the end of the test.

U TEST UV RĒDING KOMPRĒHENSHUN IN U REGYŪLƏRİZD ÒRTHOGRUFĖ

Dərekshunz: Rēd thu sampəl pårugraf bēlō. It haz numbərd blangks ın ıt. Thu fərst blangk ız number Cl. Look bēlō thu pårugraf at thu lin uv wərdz wıth Cl ın frunt uv ıt. Find thu wərd ın lin Cl that måks thu best sens ın blangk Cl. Thu wərd hərıkån frum lin Cl måks thu best sens ın blangk Cl. Thu wərd herıkån ız thu ansər to number Cl. Draw u lin undər thu wərd hərıkån.

Nou look at thu wərdz ın lin C2. Find thu wərd ın lin C2 that måks thu best sens ın blangk C2, and draw u lin undər ıt.

Thu Wether Byūrō gıvz ēch herıkån u gərl'z nåm. Ēch yėr thu fərst _____Cl_____ ız gıvən u nåm that bēgınz wıth A, such az _____C2_____.

Cl. munth hərıkån nåm Byūrō stort

C2. Mårė Betsė Lındu Sūzən Alıs

Thu wərd Alıs måks thu best sens ın blangk C2. Yū shood hav drawn u lin undər thu wərd Alıs.

Wen yū or gıvən thu sıgnəl tū bēgın, draw u lin undər thu best wərd fōr ēch uv thu blangks on thu folōıng pājəz. Thår ız nō penəltė fōr gesıng; nō points or subtraktəd fōr rong ansərz. Ėvən ıf yū or not shoər uv an ansər, måk thu best ges yū kan.

Fōrm 1

Masks sərvd thrė mån funkshunz ın thu ånshunt Grėk thėuter. Sıns ônlė thrė mål aktərz wıth spėkıng ports wər pərmıtəd on thu ståj, dıfərunt _____1_____ uloud thėz aktərz tů plå tů ôr thrė ports at wun tim. Thu fumılyər, lorjər-than-lif-siz masks awlsô helpt thu awdıyunsəs ın thu lorj, ôpən thėuterz tů _____2_____ thu kårıktərz môr ėzılė. Finulė, sum masks wər dėzind tů åd ın prôjektıng thu aktərz' voısəz tů awl kôrnərz uv thu thėutər.

1. plåyərz skrıpts masks kostůmz ståjəz

2. rekugniz chånj reprėzent ıntrôdůs uplawd

Lif rėliz on lit and ınfrured rådėyåshun. Thu ərth wood bė bårən and frôzən wıthout _____3_____ enərjė. Bi mėnz uv fôtôsınthusıs wich rėkwirz lit, grėn plants måk fůd, and ınfrured rådėyåshun _____4_____ thu hėt nesusårė tů sustån lif.

3. sôlər havıng statık gıvıng pôtenshel

4. kərtålz prôvidz ekstrakts chånjəz prėklůdz

Awl hyůmən kumyůnıtėz emploı sum kind uv langgwıj. Langgwıj chånjəz thrů thu _____5_____ uv nů wərdz and thu droping uv ôld wunz. Thėz chånjəz ın langgwıj awfən _____6_____ chånjəz ın kundıshunz wıthın thu kumyůnıtė.

5. dėlėtıng rėtərn speling lengkthening adıng

6. end prėvent rėflekt plan fôrgô

Thó u fyú mómunts ərlèyər Ì had felt that Ì kood wawk nó fərthər, thu sit uv thu _____7_____ landmork, thu solıtárè trè, túnit _____8_____ ugenst thu wıntrè grå ski, kawzd mè tú kwıkən mi pås.

7. unnón unyúzhyúwəl awsum fumılyər spors

8. pıtəd blosumıng grúpt sılooweted ınvızıbəl

Hèlèum ız umung thu litəst uv thu elumunts. Hèlèum ız awfən yúzd ınsted uv hidrójən ın bulúnz bèkuz, lik uthər nóbəl gasəz, ıt duz not redılè rèakt wıth uthər substunsez. Wıth _____9_____, on thu uthər hand, thár ız awlwáz thu dánjər uv eksplózhunz bèkuz uv ıts hi _____10_____ uv rèaktıvıtè.

9. hèlèum hidrójən atumz oksèjən atmusfér

10. kontent methud kombınáshun stubılitè dègrè

Hè kunklúded bi sáıng, "Thıs, then, ız wun uv thu fundumentəl _____11_____ uv our siuns: thu mákıng uv prédıkshunz ubout u pərsun'z lif, bást upon thu pózishun uv thu storz at hız berth. If _____12_____ ız tu serviv, wè must kunvıns uthərz uv thu vulıdıtè uv our pózishun."

11. serváz dètərunts laks kawzəz pərpusəz

12. junetıks ustrolujè fızıks náchər sikolujè

Thu orkɪtekt hú haz studēd ukústɪks nōz how tú prōvid good _____13_____ fōr lɪsənɪng tú myúzɪk and spēch. Not ōnlē must an awdɪtōrēyum bē shāpt fōr good ukústɪks, but ɪt must awlsō bē fernɪsht with mutērēyəlz sulektəd tú kuntrōl rēvərbərāshun. Wen submɪtɪng planz fōr an awdɪtōrēyum, thu orkɪtekt ɪnklúdz ukústɪk mutērēyəlz ɪn hɪz _____14_____.

13. soundɪngz myúzɪk tɪmz kundɪshunz ɪnjoɪmunt

14. spesɪfɪkāshunz wawlz ēkwɪpmunt awdɪtōrēyum mutērēyəlz

Thu trudɪshun uv thu kast sɪstəm _____15_____ Indēyu'z tranzɪshun tú u modərn demukratɪk stāt. Bi fɪksɪng an ɪndɪvɪjyúwəl'z plās ɪn sōsiutē at bərth, thu kast sɪstəm prēventəd menē talunted pēpəl frum _____16_____ pōzɪshunz wār thā kood yúz thār ubɪlɪtēz fōr thu benufɪt uv thu nāshun.

15. helpt hāsənd hampərd stortəd endəd

16. dēzirubəl suksesfəl utānɪng ōpənɪng yúzɪng

Thu Brɪtɪsh Brawdkastɪng Kōrpərāshun haz thu rēsponsubɪlɪtē fōr prōvidɪng rādēō prōgramz fōr awl uv Brɪtən. U _____17_____ popyúlatəd dɪstrɪkt ɪn thu Nōrth uv Skotlund ɪz entɪtəld tú ɪts prōgramz az much az an ɪndustrēyəl ārēu. Thu B.B.K. cannot dēzɪn ɪts rādēō kuvrɪj az u _____18_____ stāshun mit, konsuntrātɪng on hilē popyúlātəd rējenz and ɪgnōrɪng thu rest.

17. sporslē hevɪlē fōrɪn Scotɪsh Brɪtɪsh

18. popyúlər publɪk núz lujɪtumut kumərshəl

Thu dėvelupmunt and prezervāshun uv _____19_____ spās ın erbun ārėuz ız u grōing kunsern. Thu problem urizez bėkuz thu grōth uv _____20_____ ōrdənārelė dėkrėsez thu uvālubel ārėu at thu sām tim that ıt _____21_____ thu nėd fōr porks and plāgroundz.

19. rėnūel ōpen sıtė klasrūm kroudəd

20. pulūshun noız frėdəm popyūlāshun spās

21. ınkrėsəz planz dėkrėsəz ōverlooks prūvz

In refəruns tū u _____22_____ ukwântuns uv ourz, u portıkyūlərlė proud and hawtė woomən, u frend uv min wuns sed, "Ì kannot rėkawl her nām, but shė'z thu ōnlė pərsun Ì nō hū kan _____23_____ wil sıtıng doun!" Imėdėutlė Ì nū _____24_____ hūm hė spōk.

22. klōs shi myūchūel dėr mėk

23. wawk sulk kri strut sıng

24. tū fōr uv with her

Sıns rādėō wāvz travel at thu nōn and konstunt spėd uv ubout 186,000 milz u sekund, bi _____25_____ thu tim tāken fōr wāvz tū rėtərn tū thu rādar tranzmıtər after rėflekshun frum thu ārkraft ıt ız posıbel tū estımāt thu dıstuns uv thu _____26_____ frum thu tranzmıtər.

25. ınkrėsıng chānjıng rėdusıng mezhərıng spāsıng

26. kraft wāv rādėō rėflekshun ekō

Egzistenshəlists prətest thu vyú uv man az u pasiv bəing húz bəhávyər iz dətermind bi nacherəl ór histórikəl fórsəz. Thá emfusiz thu impórtuns uv thu wil in hyúmən náchər and stres thu nusesitə uv _____27_____. Urjənt dəsizhənz must bə mád and man must mák them, évən in thu fás uv _____28_____. Thó hə kan never nó thu outkum, man must bə rəsponsibəl fór hiz ón kumitmunts.

27. lif chois kunfórmitə pés dəpendens

28. rézən destunə unsértuntə défət nusesitə

Oksəjən kan bə prəpárd in thu labrutórə bi _____29_____pótasəum klórát. In this proses, thu pótasəum klórát iz hətəd in thu _____30_____ uv manggunés dioksid and seperáts intú pótasəum klórid and oksəjən. Thu katulitik ájunt, manggunés dioksid, duz not _____31_____ ánə chánj.

29. pródusing kumbining kúling frézing dəkumpózing

30. chánjing rédukshun eksplózhun pródukshun prezuns

31. kawz undergó prévent help end

Ôkəžhunəlė kloudz that or sufıshuntlė dėp and that kuntán sufıshunt wotər kontent tů prŏdůs prėsıputáshun fál tů dů sŏ, prėzůmublė bėkuz uv thu lak uv u fyů lorj wotər dropluts ôr uv temperucherz lŏ ėnuf tů prŏdůs is at thu kloud tops. In such kásəz, ıt ız kunsėvubəl that thu _____32_____ uv lorj dropluts ıntů thu bás uv thu kloudz ôr uv ortufıshəl frėzıng bodėz ıntů thu tops uv kloudz mit kəm prėsıputáshun ôr at lėst _____33_____ ıts ôkəruns. Wil ıt upėrz that kloud sėdıng má kawz frakshunəl ınkrėsəz ın prėsıputáshun ın sum árėyuz, thár ız nŏ evudens that prėsıputáshun az u hŏl kan bė _____34_____ ın thıs wá.

32. ôkəruns élımunáshun klustər ınjekshun path

33. ımpėd usům hásən nėgát prėzərv

34. mezhərd prėzərvd prėventəd ubzərvd ınkrėst

Tů dėtərmın u kundıshun wıch ız nesusárė fôr thu ôkəruns uv u gıvən évent, wun must egzamın ınstunsəz ın wıch thu évent ın kweschun ız _____35_____ and awlsŏ ınstunsəz ın wıch ıt ız lakıng. U fėcher wıch _____36_____ wenevər thu évent táks plás but wıch ız nevər prezunt ın thu _____37_____ uv thu dėzıərd évent má bė kawld u nesusárė kundıshun.

35. prezunt sufıshunt frėkwunt dıstıngkt jenrəl

36. dısupėrz ôkərz wánz ımprůvz fálz

37. reputıshun absuns bodė prezuns wák

Rûsô bêlêvd that man wuz bôrn with sərtun pôtenshéalutêz wich hê utempted tû rêuliz. Konflikt with uthər men urôz wen thêz ambishunz wər _____38_____. This wuz môst liklê tû ôkər in lorj, ekunomiklê kompleks sôsiutêz morkt bi unêkwəl distrubyûshun uv welth and kuntrôl bi an aktiv _____39_____. Fôr u man tû bê on good tərmz with himself and hiz nâbərz, hê must liv in u sôsiutê uv êkwəlz wâr hê dêpendz not on thu kuprês uv u strawng and welthê munôritê but on _____40_____ upliing tû awl membərz uv thu kumyûnitê istablishing them.

38. utând akchûəlizd dərektəd rêulizd thwôrtəd

39. munôritê êlektərut past povertê êlekshun

40. impulsəz sovrunz ambishunz lawz nâshunz

Sum uv Dorwin'z kunklûzhunz wər sô _____41_____ tû akseptəd bêlêfs that thâ wər kundemd az _____42_____, kontrârê tû komun sens. But siuntifik men, wethər thâ akseptəd hiz thêərêz ôr not, imploid hiz hipothusêz az _____43_____ idêuz fôr mâking nû obzərvâshunz and ekspêrumunts umung thu thingz uv raw ekspêrêyuns.

41. simulər unwelkum reluvunt od kontrârê

42. imutâshunz ubzərd akseptubəl awfən kumplêtlê

43. dərektiv kərekt fûlish yûslus rûtên

Jon Lok, an empêrusist, did not bêlêv that thu hyù-mun mind kuntând inât idêuz and prinsupelz. Rather, hê bêlêvd that thu mind wuz urijenêlê _____44_____ and that awl nolij wuz gând frum sensâshun and rêflekshun, thu tù sôrsez uv ekspêrêuns. Thus ânê konsept ôr idêu must bê ukountêd fôr bi trâsing it bak tù thu _____45_____ frum wich it mit hav urijenâted. Thârfôr, man kood _____46_____ nonegzistunt objikts ônlê if, thrù hiz ôn ekspêrêuns, hê had prêvêuslê ukwierd thu konsepts uv thu les kompleks elumunts involvd.

44. prôgramd blangk môldêd kompleks kumplêt

45. konsept prinsupel bêlêf ekspêrêuns thawt

46. rekigniz identufi prûv klasifi imajin

Primitiv majik sêmz tù bê bâst on tù prinsupelz uv thawt: fêrst, that an ifekt rêzembêlz its kawz; and, sekund, that thingz wich hav wuns ben in kontakt with êch uthêr kuntinyù tù akt on êch uthêr êvên after fizikêl kontakt haz ben _____47_____. Thu mujishun thus bêlêvz that hê kan krêat u dêziêrd ifekt bi _____48_____ it; and that akshunz tâkên ugenst u mutêrêêl objikt wil _____49_____ thu pêrsên with hûm thu objikt wuz wuns in kontakt.

47. inishêâtêd brôcht sevêrd rêstôrd uchêvd

48. imutâting identifiing imajining distôrting mâking

49. strengkthên shô ufekt prôtekt imbiter

Thu objikts uv siuns, lik thu derekt objikts uv thu orts, or an ordər uv rēlāshuns wich serv az tülz tü _____50_____ imēdēut havingz and bēingz. Goodz, objikts with _____51_____ uv foolfilmunt or thu nachərəl früishun uv thu diskuvərē and imploimunt uv mēnz wen thu kunekshun uv endz with u sēkwenshəl ordər iz _____52_____.

50. ifekt prēvent rēdüs ekspört rēplās

51. injoimunt thawts yüsəz endz kwawlutēz

52. wēkend rēkwierd jujd dētermind lawst

If yü finish bēfôr thu tim iz up, yü mä gō bak and chek yôr werk. This iz thu end uv thu test.

U TEST UV RĖDING KOMPRĖHENSHUN IN U REGYÙLƏRİZD ÒRTHOGRUFĖ

Dərekshunz: Rėd thu sampəl pårugraf bėlò. It haz numbərd blangks ın ıt. Thu fərst blangk ız number C1. Look bėlò thu pårugraf at thu lin uv wərdz with C1 ın frunt uv ıt. Find thu wərd ın lin C1 that måks thu best sens ın blangk C1. Thu wərd hərıkån frum lin C1 måks thu best sens ın blangk C1. Thu wərd herıkån ız thu ansər to number C1. Draw u lin undər thu wərd hərıkån.

Nou look at thu wərdz ın lin C2. Find thu wərd ın lin C2 that måks thu best sens ın blangk C2, and draw u lin undər ıt.

Thu Wethər Byùrò gıvz ėch herıkån u gərl'z nåm. Ėch yėr thu fərst _____C1_____ ız gıvən u nåm that bėgınz with A, such az _____C2_____.

C1. munth hərıkån nåm Byùrò stort

C2. Mårė Betsė Lındu Sùzən Alıs

Thu wərd Alıs måks thu best sens ın blangk C2. Yù shood hav drawn u lin undər thu wərd Alıs.

Wen yù or gıvən thu sıgnəl tù bėgın, draw u lin undər thu best wərd fòr ėch uv thu blangks on thu folòıng påjəz. Thår ız nò penəltė fòr gesıng; nò points or subtraktəd fòr rong ansərz. Ėvən ıf yù or not shoər uv an ansər, måk thu best ges yù kan.

FORM 2

U yung siuntist duz not nëd tů rëprödůs awl thu ekspërimunts that hav ben dun in hiz chözen fëld. Hë bildz on thu werk uv thu siuntists hů _____1_____ him and këps införmd on thu _____2_____ findingz uv felð siuntists.

1. prësëded kritisizd permit imploi bëlëv

2. sëkrit difukult förgoten kerunt fyůcher

Thu störij uv wët in an eluvåter prëzervz its kwāwlitë, sð that it mä bë sðld lawng after it haz ben grðn, with u _____3_____ uv dëtërëðrðshun. Such störij fusilutëz inåbel thu former tů såv thu grån för u tim wen it mä bë mðr _____4_____.

3. probubilitë problem minumum dëgrë tðtalitë

4. morkitubel uvålubel kumðdëus edibel aksesubel

Thu Magnu Kortu iz wun uv thu möst fåmus dokyůmunts in thu histerë uv guvernmunt. Umung uther prðvizhunz, it spesufiz thu rits uv vaselz, _____5_____ thu king frum impözing taksez without thu kunsent uv thu gråt kounsel, and förbidz _____6_____ werkingmen uv thår goodz ðr implumunts för petë ðfensez.

5. prðtekts såvz rëkwierz asks rëstränz

6. punishing këping dëpriving påing teling

Az thu lit grōz wēkər, wē must ekspōz thu film tū mōr uv thu _____7_____ bi ōpənıng thu lenz uv thu kamru widər ōr bi kēpıng thu shutər ōpən lawnggər. Pıkchərz kan bē tākən ın mūnlit az wel az sunlit, but sıns mūnlit ız sō much wēkər, thu ekspōzhər must bē mād kunsıderublē _____8_____.

7. kamru mētər pıkchər lit akshun

8. shōrtər shorpər britər clērər lawnggər

Wun hū nōz that thu Latən wərd "ā" mēnz "without" and that thu Latən "grafēu" rēferz tū ritıng, kan redelē _____9_____ thu Ingglısh wərd "āgrafēu" az thu _____10_____ tū rit.

9. rit dēfin prōnouns mıstāk anōtāt

10. fusılutē kupasutē tendunsē prōpingkwıtē ınubılutē

Baktērēu, mikrōskopık ōrgənızəmz found ın awl ōrganık matər, lıvıng and ded, rēprōdūs vārē rapıdlē. Lakıng klōrufıl, thu grēn kulərıng matər nēdəd tū _____11_____ thār ōn fūd, menē or pārusıtık. Sərtən baktērēu or _____12_____ tū lif, ādıng ın dijeschun; kunvertıng ded ōrganık matər ıntū fūd fōr plants; usıstıng ın fərmuntāshun.

11. kunsūm kulər manyūfakchər manufest fusılutāt

12. hormfoəl ındıspensubəl ujustəd bēgınıng upōzd

In thu polunáshun uv flouəring plants, thu polun gránz travəl frum thu anthər, thu mál rèpròduktiv ôrgun at thu top uv thu stámun, tú thu stigmu, thu fémál ôrgun wich _____13_____ thu polun. Frum thu _____14_____, thu polun gránz travəl dounwərd, thrú túbz, tôərdz thu ôvərè, wár fərtəlizáshun ôkərz.

13. pròdúsəz rèsèvz fərtəlizəz plants distroiz

14. anthər stámun ôvərè stigmu túbz

In trú alfubetik riting, idéuz or eksprest inderektlè thrú thu letərz and wərdz uv thu langgwij béing yúzd. Béfôr alfubetik riting wuz dèvelupt, houevər, pépəl yúzd pikchərz tú _____15_____ idéuz. Pikchərz uv pépəl, anumelz, and objikts wər yúzd in sərtun fórməl wáz tú tel ubout such èvents az hunting ekspidishunz and wór portéz. Békuz thu pikchərz wər yúzd in _____16_____ wáz, ánèwun fumilyər with thu ském wood nô thu mèning uv u mesij.

15. reprézent rèplás dètərmun èlumənàt rèmembər

16. difrunt induvijyúəl pərskribd stránj ortistik

Advərtizərz awfən pá lorj sumz tú sponsər teluvizhun prògramz. Thu hiist prisəz or pád fôr prògramz that utrakt menè vyúərz. Wil thu pris fôr thèz _____17_____ prô-gramz iz hi, thu sponsər wil tàk intú ukount avrij kawst pər _____18_____ rècht az wel az thu tôtəl kawst.

17. avrij myúzikəl rádèô udvenchər popyúlər

18. minit pərsun sentij produkt mesij

U nôted orkıtekt wuns rêmorkt that hê kood not understand wi thu mujôrıtê uv dêzinerz kuntınyûd tû dêzin, bılderz bıld, and bierz _____19_____ u nû hous that wuz ın Kåp Kod, kulônêel, ôr ârê uther _____20_____ stiel. Hız fêlıng wuz that nû kunstrukshun shood _____21_____ nû mutêrêelz, nû teknêks, and ubuv awl, nû orkıtekcherel dêzinz.

19. wawnt lıv ın sêk bî bıld

20. trudıshunel ôrıjınel êfektıv unfumılyer modern

21. kopê ıgnôr êvôk prêpâr yûz

Wen B ız prezent, A ız awlwâz prezent tû, and wen A ıs prezent, C ız never prezent. D and E or ındêpendunt uv A and C, but wenever D ôkerz, E ôkerz az wel. Thârfôr, thu prezens uv B awlwâz ımpliz thu absıns uv _____22_____; thu prezens uv C never ımpliz thu _____23_____ uv A; and thu prezens uv D awlwâz ımpliz thu prezens uv _____24_____.

22. A B C D E

23. ındêpendens ôkeruns absıns kawzâshun rêvers

24. A B C D E

Sum stâts utempt tû ɪnshoor u hî kwawlitê uv ejyûkâshun bî udmɪnustərɪng stât-wid egzamɪnâshunz at thu end uv u pərskrîbd kôrs uv studê. It ɪz posubəl, houever, fôr thêz egzamɪnâshunz tû hav u _____25_____ ufekt on ɪnstrukshun, sɪns têcherz mâ ôrêent thu ɪnstrukshun _____26_____ tôerd thu stât egzamɪnashun rather than tôerd brawder nolɪj.

25. benufɪshəl kumpensətôrê sɪmulər nesusârê detrumentəl

26. brêflê kunklûsɪvlê dɪfruntlê awlsô spɪsɪfɪklê

Tamerlân wuz u rûthlus kongkerər hû led hɪz ormêz on nûmərus kampânz ugenst menê Âzhun kɪngdumz. He bɪlt u hyûj empiər bî lawng and dɪfukult fitɪng, but thɪs empiər wuz _____27_____, fôr ɪt dɪd not _____28_____ thu dɪsenshunz umung hɪz ârz.

27. pərmununt tranzɪtôrê proud smawl unjust

28. rêspekt dɪskuvər serviv bêlêv ɪnkərɪj

Ingglund haz nô rɪtən konstɪtûshun. Its konstɪtûshun ɪz wutevər Porlumunt dêsidz ɪt ɪz. Thârfôr, thu jujez uv Ingglund dû not rûl on kweschunz uv konstɪtûshunalɪtê wen ɪnfôrsɪng thu _____29_____ lawz. In kuntrêz with u rɪtən konstɪtûshun krêâtɪng u guvernmunt with _____30_____ pouerz, houevər, thu kôrts mâ prôvid u mênz uv dêtermunɪng wether lawz or ɪn ukôrd with thu bâsɪk prɪnsupəlz set fôrth bî thu _____31_____.

29. kôrt konstɪtûshunəl dêvin Porlumentərê lêgəl

30. publɪk lɪmuted absulût horsh vôtɪng

31 Konggrus juj konstɪtûshun Senɪt Porlumunt

Thu taruntelu ız u fȯk dans that urıjenâted ın Itulė. Thu sımulárıtė bėtwėn thu _____32_____ uv this dans and that uv thu turanc͞helu, u lorj spider, ız not u kȯınsıdıns. Turanc͞heluz tâk thâr nâm frum thu Italėun sıtė uv Toruntȯ, wâr thâ ȯker. It wuz wuns bėlėvd that u turanc͞helu'z bit wood kawz u dızėz kawld taruntızem. Thu mân _____33_____ uv taruntızem wuz supȯzedlė an unkuntrȯlubel erj tů dans. Thu taruntelu awlsȯ tâks ıts nâm frum _____34_____ and wuz sumtimz danst az u kyoor fȯr taruntızem.

32. soundz rıthem nâm ȯrıjen můvmunts

33. sımtum kawz trėtmunt bėlėf danjer

34. spidərz Toruntȯ dızėz dansez medusın

Kȯrt kâsez urizıng frum u privut ınjerė or kawld tȯrts and or tâken tů sıvel kȯrts. U publık ınjerė ız u krımınel kâs and gȯz tů thu krımınel kȯrt. Thu ak͞shun ın u sıvel sůt ız storted ugenst thu raw͞ngdůer bi thu ınduvıjyůel ınjerd. Thu krımınel sůt ız bėgun bi u prosıkyůter. If u man bernz doun yȯr hous, yů kood tâk ak͞shun ugenst hım ın u _____35_____ kâs bėkuz hė haz raw͞ngd yů. But thu _____36_____ mâ prosıkyůt hım ın a _____37_____ kâs bėkuz uv hız wılfool akt ındânjerıng thu publık.

35. sıvel publık krımınel triel kȯrt

36. sůt jerė prosıkyůter fiermun juj

37. krımınel sıvel triel privut tȯrt

Thu ımpârmunt uv thu ubılutė tů yůz ôr understand lan͞ggwıj ız nôn az ufâz͞hėu. Ufâz͞hėu ız not dů tů u dėfekt ın thu ôrgunz uv spėch ôr hėrıng, u dėfekt ın ıntelıjuns, ôr an ėmôs͞hunel dısterbuns, but, rather, ıt ız thu _____38_____ uv an ınjerė ôr dısterbuns ın thu brân. Thâr or menė verîutėz uv ufâz͞hėu; sum ufâzıks mâ bė âbel tů rėpėt wordz sumwun els haz sed awlthô thâ kannot prôdůs them _____39_____. Ôkâz͞hunelė, awtumatık sėkwensez su͞ch az kountıng kan ôker wil môr _____40_____ spė͞ch ız ımposubel.

38. kawz foundâs͞hun jenusıs konsukwens hındruns

39. ôrelė kwıklė ımutâtıvlė at wıl ınâtlė

40. konkrėt stėrėôtipt munotenus krėâtıv prôzâık

Ukôrdıng tů Jon Stůert Mıl, ınterfėruns bi kulektıv u͞thôrıtė ıntů privut ufârz ız _____41_____ônlė wen thu sâftė uv uthərz ız t͟hretend. Thıs upliz not ônlė tů aks͞hun, but tů t͟hawt and bėlėf az wel; fôr egzampel, nô guvernmunt haz thu rit tů _____42_____ frėdum uv ôpınyun. Mıl kuntendz that rėstrâning frėdum uv ekspres͞hun mâ smuthər thu trůth. Fawls kunvıks͞hunz awlsô serv thu kawz uv trůth bi ekspôzıng and rėfyůtıng erer. Fınulė, Mıl bėlėvz that frėdum uv thawt and bėlėf ız ėsens͞hel bėkuz ôpınyunz or not kumplėtlė akyůrıt ôr ınakyůrıt, rather thâ _____43_____ elumunts uv bôth trůth and fawlsıtė.

41. unwôrunted uplıkubel dėnid côerst justıfid

42. supres lejıslât advôkât kumpel ekstend

43. râdėât c͞hůz rėfyůt ımbodė dıspel

Menē pēpəl, thō thā nō that thu _____44_____ uv u tāl on ānē givən tos uv u koin ız wun haf, wıl, wen tōld that u koin haz fawlən hedz-up fiv timz ın suksesẖun, stāt that thu probubılitē uv u tāl on thu sıksth tos ız _____45_____ wun haf. Thā usūm that thu bēhāvyər uv thu koin on thu sıksth tos ız ın sum wā dētərmınd bi thu koin'z past bēhāvyər. This usumpsẖun ın tərn ımpliz that thu koin pōzezəz u mekunızəm sımulər tū u _____46_____ wich kan lıngk ıts past bēhāvyər tū ıts prezənt bēhāvyər.

44. fraksẖun probubılitē prēdıksẖun outkum fungksẖun

45. les than ēkwəl tū grātər than awlwāz never

46. profusē memərē mōtər baluns mushēn

Awlthō tūdā sūpərstısẖus bēlēfs mā bē kunsıdərd ırasẖunəl and mā bē _____47_____ bi thu mōr ınlitend memberz uv sōsiitē, at wun tim thēz "sūpərstısẖunz" wər kunsıdərd rēzənubəl and wər pərfıktlē kunsistunt with thu bēlēfs uv thu tim. Fōr egzampəl, sıns u shadō ōr rēflektəd ımıj wuz bēlēvd tū bē port uv thu sōl, ıt wuz _____48_____ tū kunklūd that bi damıjıng thu ımıj ın sum wā, thu sōl, ōr lif ıtself, wood awlsō bē damıjd. Thus, sūpərstısẖunz awfən reprēzent sound lojık _____49_____ bi u fawls premis.

47. rējektəd ınlitend udoptəd rēspektəd propugātəd

48. strānj kontrudıktərē unalugus nacherel nesusārē

49. ımprūvd mınumizd ınvalıdātəd egzajərātəd givən

Hē sēz tū ɪt that vencherz uv thɪs thēoretɪkel sōrt stort frum and _____50_____ ɪn derektlē ekspērēɪnst subjɪkt-mater. Thēorē mā ɪntervēn ɪn u lawng kōrs uv rēzenɪng, menē pōrshunz uv wɪch or _____51_____ frum wut ɪz derektlē ekspērēɪnst. And thɪs ekspērēɪnst mutērēel ɪz thu sām fōr thu _____52_____ man and thu man ɪn thu strēt.

50. rētern kumens termināt prōdūs eksplōr

51. rēelɪstɪk ubskyoer ubzervd lawst rēmōt

52. sɪuntɪfɪk komen nēdē sām werkɪng

If yū fɪnɪsh bēfōr thu tɪm ɪz up, yū mā gō bak and chek yōr werk. This ɪz thu end uv thu test.

APPENDIX G

Correlation of Items on Gates-MacGinitie Reading Tests, Survey F, Comprehension Section,

Form 1 in Traditional Orthography

ITEM	SCALE	MEAN	SIGMA	R(TOTAL)	R(SCALE)
1	1	.91	.282	.3021	.3023
2	1	1.00	.000	.0000	.0000
3	1	.96	.204	-.0928	-.0115
4	1	1.00	.000	.0000	.0000
5	1	.96	.204	.3710	.3410
6	1	.96	.204	.0464	.1648
7	1	.87	.337	.3651	.2459
8	1	.87	.337	.4494	.4594
9	1	.87	.337	.2247	.2459
10	1	.96	.204	.0464	.1648
11	1	.83	.379	.1497	.2598
12	1	1.00	.000	.0000	.0000
13	1	.96	.204	-.2319	-.0996
14	1	1.00	.000	.0000	.0000
15	1	.87	.337	.3651	.5128
16	1	1.00	.000	.0000	.0000
17	1	.91	.282	.2685	.2385
18	1	.65	.476	.2582	.4134
19	1	.96	.204	.3247	.4291
20	1	1.00	.000	.0000	.0000
21	1	1.00	.000	.0000	.0000
22	1	.96	.204	.3710	.3410
23	1	.70	.460	.4522	.4330
24	1	1.00	.000	.0000	.0000
25	1	.96	.204	.5102	.3410
26	1	.70	.460	.4522	.5112
27	1	.65	.476	.5958	.6398
28	1	.65	.476	.3376	.4889
29	1	.87	.337	.0562	.0858
30	1	.96	.204	.0464	.1648
31	1	.91	.282	.4699	.3661
32	2	.83	.379	.5739	.6878
33	2	.83	.379	.6987	.6878
34	2	.96	.204	.5102	.5517
35	2	.61	.488	.6589	.5553
36	2	1.00	.000	.0000	.0000
37	2	.78	.412	.8255	.7901
38	2	.48	.500	.3787	.4285
39	2	.91	.282	.3021	.1826
40	2	.83	.379	-.0250	.0634
41	2	.91	.282	.0000	.1266
42	2	.65	.476	-.0397	.0346
43	2	.48	.500	-.0189	.1442
44	2	.74	.439	.5600	.5672
45	2	.91	.282	.1343	.1826
46	2	.48	.500	.0947	.0810
47	2	.78	.412	.7109	.7901
48	2	.57	.496	.3625	.4553
49	2	.91	.282	.1007	.0146
50	2	.52	.500	.3408	.2980
51	2	.61	.488	.1550	.2320
52	2	.35	.476	-.1589	-.1008

Correlation of Items on Gates-MacGinitie Reading Tests, Survey F, Comprehension Section,

Form 2 in Traditional Orthography

ITEM	SCALE	MEAN	SIGMA	R(TOTAL)	R(SCALE)
1	1	1.00	.000	.0000	.0000
2	1	1.00	.000	.0000	.0000
3	1	1.00	.000	.0000	.0000
4	1	.95	.218	-.0862	-.1294
5	1	1.00	.000	.0000	.0000
6	1	.90	.300	.1878	.1736
7	1	.95	.218	-.2478	-.2290
8	1	.75	.433	.1084	.1754
9	1	.85	.357	.1710	.5530
10	1	.90	.300	-.0861	.0289
11	1	.95	.218	.3986	.1692
12	1	1.00	.000	.0000	.0000
13	1	.80	.400	.5752	.7486
14	1	.80	.400	.4872	.4774
15	1	1.00	.000	.0000	.0000
16	1	.70	.458	.4714	.4830
17	1	1.00	.000	.0000	.0000
18	1	.55	.497	.1793	.3184
19	1	1.00	.000	.0000	.0000
20	1	.90	.300	.4618	.3906
21	1	.80	.400	.4285	.4231
22	1	.90	.300	.0704	-.0434
23	1	.85	.357	-.1249	.0061
24	1	.95	.218	-.2478	.0697
25	1	.95	.218	.3447	.1692
26	1	.85	.357	.3025	.3099
27	1	.65	.477	.2658	.2684
28	1	.55	.497	.2501	.4928
29	1	.60	.490	.1246	.2037
30	1	.70	.458	.3689	.2462
31	1	.90	.300	.3444	.3906
32	2	.55	.497	-.2454	.0480
33	2	.95	.218	.3986	.4804
34	2	.55	.497	.1321	.1957
35	2	.90	.300	.5400	.6368
36	2	.70	.458	.2408	.2886
37	2	.80	.400	.5165	.4500
38	2	.85	.357	.6312	.7253
39	2	.65	.477	.5858	.4968
40	2	.65	.477	.6842	.5353
41	2	.70	.458	.3689	.2886
42	2	.95	.218	.3986	.2276
43	2	.55	.497	.4861	.4172
44	2	.85	.357	.3025	.3652
45	2	.55	.497	-.0802	.0849
46	2	.85	.357	-.1249	-.0463
47	2	1.00	.000	.0000	.0000
48	2	.80	.400	.0176	.0367
49	2	.30	.458	.1947	.3527
50	2	.60	.490	.3403	.3224
51	2	.10	.300	.2817	.5265
52	2	.85	.357	.4669	.5710

Correlation of Items on Gates-MacGinitie Reading Tests, Survey F, Comprehension Section,

Form 1 in Regularized Orthography

ITEM	SCALE	MEAN	SIGMA	R(TOTAL)	R(SCALE)
1	1	.94	.242	.5479	.4611
2	1	.94	.242	.5479	.4611
3	1	1.00	.000	.0000	.0000
4	1	1.00	.000	.0000	.0000
5	1	1.00	.000	.0000	.0000
6	1	1.00	.000	.0000	.0000
7	1	.81	.390	.2458	.4179
8	1	.94	.242	.5479	.4611
9	1	.75	.433	-.0920	.1190
10	1	.94	.242	.5479	.6739
11	1	.75	.433	.2760	.1586
12	1	.81	.390	.3962	.6819
13	1	.94	.242	.5479	.6739
14	1	1.00	.000	.0000	.0000
15	1	.88	.331	.8020	.8307
16	1	.94	.242	.5479	.4611
17	1	.94	.242	.5479	.6739
18	1	.63	.484	.1018	.2837
19	1	1.00	.000	.0000	.0000
20	1	1.00	.000	.0000	.0000
21	1	.81	.390	.0954	-.0660
22	1	.75	.433	.5278	.4758
23	1	.63	.484	.3963	.6029
24	1	.94	.242	.5479	.6739
25	1	.88	.331	.0666	.3115
26	1	.69	.464	.3268	.4630
27	1	.56	.496	.4005	.3980
28	1	.63	.484	.3270	.2128
29	1	.69	.464	.4535	.6853
30	1	.88	.331	-.0095	.1558
31	1	.88	.331	.4216	.3634
32	2	.81	.390	.8045	.7252
33	2	.88	.331	.5992	.7266
34	2	.81	.390	.4177	.4607
35	2	.63	.484	.6215	.6363
36	2	.75	.433	.3729	.4842
37	2	.56	.496	.7217	.6811
38	2	.56	.496	.3667	.3430
39	2	.75	.433	.5085	.7226
40	2	.69	.464	.4897	.6837
41	2	.75	.433	.8765	.9312
42	2	.56	.496	.4343	.5511
43	2	.38	.484	.3487	.3498
44	2	.63	.484	.8294	.7429
45	2	.56	.496	.7386	.7591
46	2	.25	.433	.4407	.3799
47	2	.31	.464	.5236	.5689
48	2	.19	.390	.3559	.4649
49	2	.00	.000	.0000	.0000
50	2	.06	.242	.2490	.3565
51	2	.06	.242	.2490	.3565
52	2	.13	.331	.1870	.3657

Correlation of Items on Gates-MacGinitie Reading Tests, Survey F, Comprehension Section,

Form 2 in Regularized Orthography

ITEM	SCALE	MEAN	SIGMA	R(TOTAL)	R(SCALE)
1	1	1.00	.000	.0000	.0000
2	1	.95	.223	-.3101	-.1164
3	1	1.00	.000	.0000	.0000
4	1	.84	.365	.0218	.3401
5	1	.95	.223	.2372	.0846
6	1	.95	.223	.0119	.0846
7	1	.84	.365	-.0768	-.0291
8	1	.95	.223	.3338	.3861
9	1	.84	.365	.0415	.1555
10	1	.89	.307	-.0764	.2694
11	1	.84	.365	.4161	.4632
12	1	.84	.365	.4555	.6478
13	1	.68	.465	.1115	-.0940
14	1	.84	.365	.0415	-.0907
15	1	1.00	.000	.0000	.0000
16	1	.47	.499	.3122	.1987
17	1	.95	.223	-.0847	-.0159
18	1	.53	.499	.2637	.3855
19	1	.89	.307	-.1467	.1963
20	1	.89	.307	.0641	.2694
21	1	.74	.440	.0627	.2655
22	1	.84	.365	.2781	.5862
23	1	.63	.482	-.0510	.3207
24	1	.95	.223	-.1169	.2856
25	1	.79	.408	.1494	.2955
26	1	.95	.223	.4304	.3861
27	1	.58	.494	.5671	.2607
28	1	.53	.499	.6812	.3855
29	1	.79	.408	.0789	.2955
30	1	.89	.307	-.1233	.1231
31	1	1.00	.000	.0000	.0000
32	2	.74	.440	.3076	.2286
33	2	.95	.223	.4304	.3692
34	2	.47	.499	-.0333	.0392
35	2	.68	.465	.4672	.4498
36	2	.58	.494	.5525	.5821
37	2	.74	.440	.5851	.5627
38	2	.47	.499	.8161	.8192
39	2	.47	.499	.7153	.7325
40	2	.47	.499	.7873	.8365
41	2	.53	.499	.8252	.8794
42	2	.53	.499	.6524	.7407
43	2	.16	.365	.5302	.5084
44	2	.42	.494	.7870	.8377
45	2	.26	.440	.5087	.5379
46	2	.47	.499	.7873	.8885
47	2	.47	.499	.7873	.8885
48	2	.37	.482	.7812	.8668
49	2	.16	.365	.6288	.6033
50	2	.26	.440	.7535	.7934
51	2	.11	.307	.5215	.4779
52	2	.21	.408	.6441	.6771

APPENDIX H

A TEST OF MORPHEMIC RELATIONSHIPS

Following is a list of sixteen pairs of words. Decide whether you believe the words are related or unrelated in meaning. Then circle either "related" or "unrelated."

1. telegraph - telegraphy
   related unrelated

2. legal - loyal
   related unrelated

3. serene - serendipitous
   related unrelated

4. infeudation - lethargy
   related unrelated

5. clod - cloud
   related unrelated

6. iron - irony (sarcastic humor)
   related unrelated

7. imbibe - imbrue
   related unrelated

8. series - serious
   related unrelated

9. serif - scribe
   related unrelated

10. relevant - testament
    related unrelated

11. spumescent - decorative
    related unrelated

12. inside - insidious
    related unrelated

13. commode - commodity
    related unrelated

14. potable - imbibe
    related unrelated

15. sane - sanitation
    related unrelated

16. dindle - serve
    related unrelated

APPENDIX I

U TEST UV MÒRFĖMIK RĖLÀSHUNSHIPS

Foldıng ız u lıst uv sıkstėn pārz uv wərdz. Dėsid wethər yū bėlėv thu wərdz or rėlātəd ōr unrėlātəd ın mėnıng. Then sərkəl ėthər "rėlātəd" ōr "unrėlātəd."

1. telugraf - tulegrufė
   rėlātəd unrėlātəd

2. lėgəl - lōıəl
   rėlātəd unrėlātəd

3. sərėn - serundıputus
   rėlātəd unrėlātəd

4. ınfyūdāshun - lethərjė
   rėlātəd unrėlātəd

5. klod - kloud
   rėlātəd unrėlātəd

6. iərn - irunė (sorkastık hyūmər)
   rėlātəd unrėlātəd

7. ımbib - ımbrū
   rėlātəd unrėlātəd

8. sıréz - sırėus
   rėlātəd unrėlātəd

9. sāruf - skrib
   rėlātəd unrėlātəd

10. reluvunt - testumunt
    rėlātəd unrėlātəd

11. spyūmesənt - dekrutıv
    rėlātəd unrėlātəd

12. ınsid - ınsıdėus
    rėlātəd unrėlātəd

13. kumōd - kumodıtė
    rėlātəd unrėlātəd

14. pōtubəl - ımbib
    rėlātəd unrėlātəd

15. sān - sanıtāshun
    rėlātəd unrėlātəd

16. dındəl - sərv
    rėlātəd unrėlātəd

APPENDIX J

Z-TRANSFORMATIONS SIGNIFICANCE MATRIX FOR ITEM CORRELATIONS TO SUBGROUPINGS OF TEST ITEMS ON MORPHEMIC RELATIONSHIPS TEST IN TRADITIONAL ORTHOGRAPHY

Item Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Subgroup																
V S - S M 1,5,13,15	.001	1.000	.083	.372	.001	1.000	.339	.517	.468	.025	.317	.007	.000	.230	.000	.368
V S - D M 3,6,8,12	.802	1.000	.000	.650	.057	1.000	.780	.000	.163	.561	.992	.000	.022	.622	.165	.188
V D - S M 2,7,9,14	.727	1.000	.554	.063	.081	1.000	.000	.081	.000	.583	.893	.674	.164	.000	.341	.225
V D - D M 4,10,11,16	.955	1.000	.872	.000	.171	1.000	.327	.221	.520	.000	.000	.766	.957	.020	.028	.000

V S - S M = Visually Similar and Similar in Meaning
V S - D M = Visually Similar and Dissimilar in Meaning
V D - S M = Visually Dissimilar and Similar in Meaning
V D - D M = Visually Dissimilar and Dissimilar in Meaning

Z-TRANSFORMATIONS SIGNIFICANCE MATRIX FOR ITEM CORRELATIONS TO SUBGROUPINGS OF TEST ITEMS ON MORPHEMIC RELATIONSHIPS TEST IN REGULARIZED ORTHOGRAPHY

Item Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Subgroup																
V S - S M 1,5,13,15	.000	.368	.601	.468	1.000	.502	.142	.059	.831	.792	.815	.853	.000	.775	1.000	.210
V S - D M 3,6,8,12	.951	.306	.000	.409	1.000	.053	.930	.030	.184	.181	.193	.038	.116	.745	1.000	.469
V D - S M 2,7,9,14	.864	.112	.529	.028	1.000	.159	.000	.646	.000	.332	.818	.732	.475	.003	1.000	.216
V D - D M 4,10,11,16	.872	.160	.591	.000	1.000	.839	.094	.267	.517	.725	.000	.351	.741	.695	1.000	.012

V S - S M = Visually Similar and Similar in Meaning
V S - D M = Visually Similar and Dissimilar in Meaning
V D - S M = Visually Dissimilar and Similar in Meaning
V D - D M = Visually Dissimilar and Dissimilar in Meaning

OPINIONS ABOUT SPELLING CHANGE

This questionnaire is an attempt to find out how you feel about certain concepts in spelling. Circle the response which best describes how you feel about that statement.

Please respond to all eight statements.

1. "Elektrishen" is a better way to spell the word "electrician."

   Strongly agree Agree Undecided Disagree Strongly disagree

2. Changes in spelling will disrupt written communication.

   Strongly agree Agree Undecided Disagree Strongly disagree

3. The present way English words are spelled is inefficient.

   Strongly agree Agree Undecided Disagree Strongly disagree

4. "Nation" and "national" should have the root word nation spelled the same even though it sounds differently in both words.

   Strongly agree Agree Undecided Disagree Strongly disagree

5. "Bear" means both an animal and "to carry." It is undesirable to have one word with two or more definitions.

   Strongly agree Agree Undecided Disagree Strongly disagree

6. "Thru" should not be accepted as a proper spelling for the word "through."

   Strongly agree Agree Undecided Disagree Strongly disagree

7. Because "to," "too," and "two" all sound alike, it would be acceptable to spell them alike.

   Strongly agree Agree Undecided Disagree Strongly disagree

8. "Lite" is a better spelling for the word "light."

   Strongly agree Agree Undecided Disagree Strongly disagree

APPENDIX L

CORRELATION MATRIX FOR ITEMS IN

"OPINIONS ABOUT SPELLING CHANGE" ATTITUDE SURVEY

Variable No.		1	2	3	4	5	6	7	8	9	10	11
No.	Name											
1	Item One	1.000										
2	Item Two	.178	1.000									
3	Item Three	.221	.062	1.000								
4	Item Four	.320	.089	.536	1.000							
5	Item Five	-.184	.030	-.357	-.264	1.000						
6	Item Six	.207	.026	.047	.071	-.145	1.000					
7	Item Seven	.130	.106	.311	.282	-.196	-.037	1.000				
8	Item Eight	.403	.119	.397	.345	-.347	.205	.325	1.000			
9	Sum of Positive Items (1,3,7,8)	.643	.169	.706	.541	-.394	.154	.635	.769	1.000		
10	Sum of Negative Items (2,4,5,6)	.254	.623	.144	.483	.396	.381	.085	.139	.227	1.000	
11	Sum of All Items	.607	.456	.595	.654	-.078	.316	.511	.638	.855	.699	1.000

APPENDIX M

Alphabetical Listing of Homophones found in Gates-MacGinitie Reading Tests, Survey F, Comprehension Section, Forms 1 and 2.

	Form 1	Form 2	Total
able		1	1
accepted	2		2
affect	1		1
aid	1		1
all	5	3	8
allowed	1		1
an	8	4	12
are	4	11	15
area	2		2
atoms	1		1
B		4	4
barren	1		1
base	1		1
based	2		2
be	11	9	20
been	2	2	4
birth	2		2
bite		1	1
bodies	1		1
body	1		1
born	1		1
Britain	1		1
build		2	2
but	5	6	11
buy		1	1
by	10	13	23
C		5	5
caste	2		2
cause	4	4	8
choose		1	1
close	1		1
coin		4	4
color		1	1
consent		1	1
copy		1	1
council		1	1
course		2	2
craft	1		1
current		1	1
D		5	5
dear	1		1
dependence	1		1
deterrents	1		1
do	1	1	2

	Form 1	Form 2	Total
does	2	1	3
done		1	1
due		1	1
effect	3	1	4
ends	2		2
fail	1		1
false		2	2
fellow		1	1
few	2		2
for	14	11	25
forth		1	1
great		1	1
greater		1	1
grey	1		1
grown		1	1
have	1	2	3
high	1	2	3
him		3	3
I	5		5
in	28	30	58
insure		1	1
its	5	5	10
jury		1	1
knew	1		1
know	2	2	4
knows	1	1	2
lack	1		1
lacks	1		1
Latin		2	2
least	1		1
led		1	1
lens		1	1
low	1		1
made	1	1	2
main	1	1	2
male	1	1	2
matter		4	4
may	2	10	12
me	1		1
meter		1	1
might	3		3
mill		3	3
mind	2		2
more	1	4	5
must	9	2	11
need	1	1	2
new	2	5	7
no	2	2	4
noise	1		1
not	6	8	14

	Form 1	Form 2	Total
on	8	8	16
once	3	2	5
one	4	5	9
or	7	10	17
orally		1	1
origin		1	1
our	2		2
past	1	2	3
peace	1		1
petty		1	1
place	2		2
presence	2	4	6
principle	1		1
principles	2	1	3
rest	1		1
right		1	1
rights		1	1
seeding	1		1
seems	1		1
sees		1	1
senate		1	1
sense	1		1
show	1		1
sight	1		1
sing	1		1
so	2	2	4
sold		1	1
some	4	4	8
soul		2	2
style		1	1
tail		2	2
their	1	3	4
there	2	1	3
through	2	2	4
time	3	3	6
to	31	30	61
told		1	1
too		1	1
turn		1	1
two	3		3
use	1	2	3
very		1	1
wanes	1		1
want		1	1
war		1	1
wave	1		1
way	1	2	3
we	1	1	2
were	5	4	9

	Form 1	Form 2	Total
when	3	6	9
where	2	2	4
whether	1	1	2
which	10	3	13
while	2	2	4
whole	1		1
whose	1		1
why		1	1
with	12	6	18
would	1	3	4
write		2	2
writing		3	3
you		2	2
your		1	1
TOTALS	312	337	649

APPENDIX N

Homophones to Total Words -- Gates MacGinitie Reading Tests, Survey F, Comprehension Section

Paragraph Number	Number of Words	Number of Homophones	Ratio of Homophones to Words
1F 1-2	82	22	.268
1F 3-4	46	7	.152
1F 5-6	42	6	.143
1F 7-8	44	8	.182
1F 9-10	58	10	.172
1F 11-12	56	11	.196
1F 13-14	62	18	.290
1F 15-16	53	12	.226
1F 17-18	64	13	.203
1F 19-21	52	6	.115
1F 22-24	57	16	.281
1F 25-26	55	8	.145
1F 27-28	74	15	.203
1F 29-31	54	9	.167
2F 1-2	48	14	.292
2F 3-4	54	17	.315
2F 5-6	57	10	.175
2F 7-8	63	17	.270
2F 9-10	38	9	.237
2F 11-12	57	15	.263
2F 13-14	57	6	.105
2F 15-16	81	15	.185
2F 17-18	54	6	.111
2F 19-21	68	20	.294
2F 22-24	79	23	.291 *
2F 25-26	61	12	.197
2F 27-28	49	6	.122
2F 29-31	77	18	.234

* NOTE: Item 2F 22-24 is an unusual item in the Gates-MacGinitie Reading Tests, Survey F, and was given different treatment. It employs letters of the alphabet in statements such as, "When B is present, A is always present too. . . ." These letters were eliminated from the homophone count for this paragraph, reducing the homophone ratio from .291 to .114.

APPENDIX O

Gates-MacGinitie Reading Tests, Survey F, Comprehension Section. Items 1 through 31 separated on the basis of Homophone-to-Word Ratio

Paragraphs containing a larger-than-average number of homophones		Paragraphs containing a smaller-than-average number of homophones	
Paragraph Number	Homophone-to-Word Ratio	Paragraph Number	Homophone-to-Word Ratio
1F 1-2	.268	1F 3-4	.152
1F 11-12	.196	1F 5-6	.143
1F 13-14	.290	1F 7-8	.182
1F 15-16	.226	1F 9-10	.172
1F 17-18	.203	1F 19-21	.115
1F 22-24	.281	1F 25-26	.145
1F 27-28	.203	1F 29-31	.167
	avg. .238		avg. .154
2F 1-2	.292	2F 5-6	.175
2F 3-4	.315	2F 13-14	.105
2F 7-8	.270	2F 15-16	.185
2F 9-10	.237	2F 17-18	.111
2F 11-12	.263	2F 22-24	.114 *
2F 19-21	.294	2F 25-26	.197
2F 29-31	.234	2F 27-28	.122
	avg. .272		avg. .144

* This figure represents an adjusted ratio. See NOTE on Appendix M.

APPENDIX P

Test of Morphemic Relationships -- SIGNIFICANCE LEVELS

SUMMARIZED FROM ANALYSIS OF VARIANCE TABLES

	Item	Category	Significance
1	telegraph-telegraphy	VS-SM	<.001
2	legal-loyal	VD-SM	.503
3	serene-serendipitous	VS-DM	.551
4	infeudation-lethargy	VD-DM	.985
5	clod-cloud	VS-SM	.503
6	iron-irony	VS-DM	.400
7	imbibe-imbrue	VD-SM	.691
8	series-serious	VS-DM	.711
9	serif-scribe	VD-SM	.735
10	relevant-testament	VD-DM	.717
11	spumescent-decorative	VD-DM	.452
12	inside-insidious	VS-DM	.193
13	commode-commodity	VS-SM	.205
14	potable-imbibe	VD-SM	.703
15	sane-sanitation	VS-SM	.097
16	dindle-serve	VD-DM	.179
17	VS-SM	Visually Similar and Similar in Meaning	<.001
18	VS-DM	Visually Similar and Dissimilar in Meaning	.524
19	VD-SM	Visually Dissimilar and Similar in Meaning	.990
20	VD-DM	Visually Dissimilar and Dissimilar in Meaning	.563

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